



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 50 and 51

[EPA-HQ-OAR-2013-0572, EPA-HQ-OAR-2015-0229; FRL-9952-89-OAR]

RIN 2060-AS02

Treatment of Data Influenced by Exceptional Events

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; notification to states with areas subject to mitigation requirements; final guidance.

SUMMARY: The Environmental Protection Agency (EPA) is finalizing revisions to certain sections within the regulations that govern the exclusion of event-influenced air quality data from certain regulatory decisions under the Clean Air Act (CAA). The EPA's mission includes preserving and improving the quality of our nation's ambient air to protect human health and the environment, and the CAA and the EPA's regulations rely heavily on ambient air quality data. However, the CAA also recognizes that it may not be appropriate to use the monitoring data influenced by "exceptional" events that are collected by the ambient air quality monitoring network when making certain regulatory determinations. When "exceptional" events cause exceedances or violations of the national ambient air quality standards (NAAQS) that subsequently affect certain regulatory decisions, the normal planning and regulatory process established by the CAA may not be appropriate. This final rule contains definitions, procedural requirements, requirements for air agency demonstrations, criteria for the EPA's approval of the exclusion of event-influenced air quality data and requirements for air agencies to take appropriate and reasonable actions to protect public health from exceedances or violations of the

NAAQS. It reflects the experiences of the EPA, state, local and tribal air agencies, federal land managers and other stakeholders in implementing this program over the past 10 years. These regulatory revisions, the EPA's commitment to improved communications, our focus on decisions with regulatory significance, and the expressed non-binding guidance in the preamble regarding recommendations for demonstration narrative and analyses to include in demonstration packages, protect human health and the environment while providing needed clarity, increasing the administrative efficiency of demonstration submittal process, and removing some of the challenges associated with implementing the Exceptional Events Rule. As part of the EPA's mission to protect public health, this action promulgates new requirements for mitigation plans for areas with known, recurring events. We are simultaneously using this action to provide written notification to those states with areas that are initially subject to these new requirements. In addition to finalizing revisions to the Exceptional Events Rule, the EPA is also announcing the availability of the final version of the non-binding guidance document titled *Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations*, which applies the rule revisions to wildfire events that could influence monitored ozone concentrations.

DATES: This final rule is effective on **September 30, 2016**.

ADDRESSES: The EPA established Docket ID No. EPA-HQ-OAR-2013-0572 for this action. All documents in the docket are listed in the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, *e.g.*, Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in

hard copy. Publicly available docket materials are available electronically in <http://www.regulations.gov>.

The EPA also established Docket ID No. EPA-HQ-OAR-2015-0229 for the related guidance document titled *Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations*. All documents in the docket are listed in the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available electronically in <http://www.regulations.gov>.

FOR FURTHER INFORMATION, CONTACT: For general information regarding this rule, please contact Beth Palma, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Policy Division, Mail Code C539-04, Research Triangle Park, NC 27711, telephone (919) 541–5432, email at palma.elizabeth@epa.gov. For general information regarding the *Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations*, please contact Lev Gabrilovich, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Policy Division, Mail Code C539-04, Research Triangle Park, NC 27711, telephone (919) 541-1496, email at gabrilovich.lev@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Executive Summary

Pursuant to section 319(b) of the CAA, the EPA is taking action to finalize revisions to the Exceptional Events Rule (codified at 40 CFR 50.1, 50.14 and 51.930), which governs the

exclusion of these event-affected air quality data. The CAA recognizes that it may not be appropriate to use monitoring data influenced by “exceptional” events collected by the ambient air quality monitoring network when making certain regulatory determinations. When “exceptional” events influence monitoring data and cause exceedances or violations of the NAAQS, air agencies can request the exclusion of event-influenced data, and the EPA can agree to exclude these data, from the data set used for certain regulatory decisions.

This section summarizes the purpose of this regulatory action and its major provisions and provides an overview of the associated guidance. After considering the comments received during the public comment period, we are making several changes to the promulgated rule language and/or the preamble, in which we provide non-binding guidance to assist air agencies in implementing the rule. In accordance with section 553(d)(3) of the Administrative Procedures Act, good cause exists to expedite effectiveness of this final rule, therefore, we are also establishing the effective date of this action to be the date that it is published in the *Federal Register*. See 5 U.S.C. § 553(d)(3). Good cause exists when urgency of conditions are coupled with demonstrated and unavoidable limitations in time; primary consideration is given to the convenience or necessity of the people affected. In this circumstance, prompt effectiveness of this final rule will allow state governors and tribes, if they wish, to consider the final rule revisions in advance of submitting recommendations for area designations for the 2015 Ozone NAAQS, which are due by October 1, 2016, and which could include the consideration of exceptional events. The deadline for states and tribes to submit recommendations for area designations for the 2015 Ozone NAAQS is a demonstrated and unavoidable time limitation. Prompt effectiveness of this final rule is in the public interest as it will ensure adequate time for states to develop their exceptional events demonstrations and time for the public to comment on

those demonstrations. In addition, typically rules are effective at least 30 days after publication to provide time for affected parties to adjust their behavior and prepare before the final rule takes effect. That circumstance does not apply to this final rule because this rule does not require a behavior change. Rather, this final rule revises and provides additional clarity with respect to a previously existing opportunity.

We are promulgating language to define those regulatory actions that comprise “determinations by the Administrator with respect to exceedances or violations of the [NAAQS].” In doing so, we apply the provisions in CAA section 319(b) to a specific set of regulatory actions (*e.g.*, designations). The final rule language returns to the three core statutory elements and implicit concepts of CAA section 319(b): (1) the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation, (2) the event was not reasonably controllable or preventable, and (3) the event was caused by human activity that is unlikely to recur at a particular location or was a natural event. We clarify in the preamble the general types of analyses and narrative that the EPA expects to see in demonstrations to address each of these three core statutory elements. We also clarify how to apply these criteria in certain scenarios and to certain event types.

In returning to the first of the three core statutory elements (*i.e.*, the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation), we are promulgating regulatory text that subsumes the “affects air quality” element into the “clear causal relationship” criterion. We are also removing from the rule language the requirement for air agencies to provide evidence that the event is associated with a measured concentration in excess of “normal historical fluctuations including background” and replacing it with a requirement for a comparison of the event-related

concentration to historical concentrations. Additionally, we are removing the 2007 Exceptional Events Rule language commonly referred to as the “but for” criterion and focus instead on the clear causal relationship criterion.

With respect to the “not reasonably controllable or preventable” criterion, the EPA is promulgating a provision that enforceable control measures are “reasonable controls” with respect to all anthropogenic sources that have or may have contributed to event-related emissions if the controls are: (1) implemented in accordance with an attainment or maintenance state implementation plan (SIP), a federal implementation plan (FIP) or a tribal implementation plan (TIP), (2) if the EPA approved the plan within 5 years of the date of an event, and (3) if the plan addresses the event-related pollutant and all sources necessary to fulfill the requirements of the CAA for the SIP, FIP or TIP.¹ Also for the “not reasonably controllable or preventable” criterion, the EPA is codifying in regulatory text that air agencies generally have no obligation to specifically address controls if the event was due to emissions originating outside their jurisdictional (*i.e.*, state or tribal) border. Of course, a submission based on emissions originating outside of the submitter’s jurisdictional borders must demonstrate that the event also meets the other exceptional events criteria.

With respect to the “human activity that is unlikely to recur at a particular location or was a natural event” criterion, we present options in this preamble that air agencies and the EPA can use to determine whether the recurrence frequency of an event is “unlikely to recur at a particular location.” We expand on this concept with regulatory language that defines a specific approach to recurrence frequency applicable to prescribed fire on wildland. We also clarify in regulatory

¹ If the air agency is required to revise its implementation plan as a result of a SIP Call action pursuant to CAA section 110(k)(5), any deference to the implementation plan’s enforceable control measures will be determined on a case-by-case basis.

language that natural events can recur, sometimes frequently, without affecting the approvability of a demonstration for the identified natural event and that we consider reasonably controlled anthropogenic emissions sources to play little or no direct role in causing those emissions.

The final rule preamble and rule text clarify that air agencies must address all of the core statutory elements and implicit concepts of CAA section 319(b) within an exceptional events demonstration. To facilitate early communications and coordination regarding the identification, development and review of these demonstrations, we are promulgating a regulatory requirement for an initial notification by the air agency to the EPA of a potential exceptional event for which the agency is considering preparing a demonstration as a preliminary step before submitting a demonstration. We further establish in rule language that the required demonstration elements include a narrative conceptual model, or narrative, describing the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance at the affected monitor(s); a demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation supported, in part, by a comparison to historical concentrations; a demonstration that the event was both not reasonably controllable and not reasonably preventable; and a demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event. Additionally, the rule revisions require documentation that the air agency conducted a public comment process.

Because affected air agencies have provided feedback regarding the difficulty associated with meeting the regulatory timelines in the 2007 rule associated with data flagging, initial event descriptions and demonstration submittals, the EPA is promulgating revisions that remove specific deadlines that apply in situations other than initial area designations following

promulgation of a new or revised NAAQS. Also associated with demonstration timing, the EPA is promulgating a provision to terminate the EPA's obligation to review a demonstration following a 12-month period of inactivity by the air agency. In addition, although we are not promulgating timelines in rule language for the EPA's response to submitted demonstrations, we are identifying in this preamble the following intended response timelines: a formal response to the Initial Notification (*see* Section IV.G.5 of this preamble) within 60 days, initial review of an exceptional events demonstration with regulatory significance within 120 days of receipt (*see* Section IV.G.7 of this preamble), a decision regarding event concurrence/nonconcurrence within 12 months of receipt of a complete demonstration (*see* Section IV.G.7 of this preamble), and a "deferral letter" within 60 days of receipt of a demonstration that the EPA determined during the Initial Notification process to not to have regulatory significance (*see* Section IV.G.7 of this preamble).

Among the questions stakeholders have raised since promulgation of the 2007 Exceptional Events Rule are those regarding fire-related components that the preamble to the 2007 Exceptional Events Rule discussed, but did not fully define or clarify. This final action promulgates in rule language several fire-related definitions and the conditions under which prescribed fires could qualify as exceptional events, which include the use of smoke management programs (SMP) and the application of basic smoke management practices (BSMP). We also discuss that while exceptional events demonstrations and data exclusions requests must be submitted by the affected state/tribal agency(ies), or with their concurrence, we support and encourage federal land managers (FLMs), other federal agencies and air agencies to work collaboratively to prepare and submit exceptional events demonstrations and data exclusion requests.

In keeping with the EPA’s mission to protect public health and after seeking comment on approaches ranging from retaining the existing “mitigation” rule requirements to promulgating new mitigation-related rule components, we are promulgating in regulatory language the requirement to develop mitigation plans in areas with “historically documented” or “known seasonal” exceptional events. This action indicates those areas to which this requirement newly applies and makes clear that the EPA will not concur with certain exceptional events demonstrations if an air agency has not submitted the related required mitigation plan within 2 years of the effective date of this action.

In addition to finalizing revisions to the 2007 Exceptional Events Rule, this action simultaneously announces the availability of a final non-binding guidance document titled *Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations* (Wildfire Guidance), which applies the Exceptional Events Rule Revisions to wildfire events that may influence ozone levels. The EPA prepared this guidance document to further address specific stakeholder questions regarding the Exceptional Events Rule and further increase the efficiency of rule implementation.

The Wildfire Guidance provides air agencies with information on how to prepare and submit evidence to meet the Exceptional Events Rule requirements for monitored ozone exceedances caused by wildfires. The document includes example analyses, conclusion statements, and technical tools that air agencies can use to provide evidence to satisfy the Exceptional Events Rule criteria. The Wildfire Guidance also identifies wildfire and monitor-based characteristics that might allow for a simpler and less resource-consuming demonstration. The Wildfire Guidance is not an EPA rule, and in specific cases the EPA may depart from the guidance for reasons that the EPA will explain at the time of the action. As noted by

commenters, while many of the technical analyses included in the document may also be applied to prescribed fire events, the guidance document does not specify how demonstrations for prescribed fire events can address all promulgated rule requirements. The public comment period for the *Draft Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations* ran simultaneously with the comment period on the proposed rule revisions and closed on February 3, 2016. The EPA received 31 comments on the draft guidance during the public comment period. The EPA summarizes and discusses these comments in a document that accompanies the final guidance document. Both the public comments received on the draft guidance and the EPA's discussion document are available in the docket at <http://www.regulations.gov> (Docket ID No. EPA-HQ-OAR-2015-0229).

Based on feedback from interested parties on the proposed rule revisions and the draft Wildfire Guidance, we intend to develop supplementary guidance to assist air agencies in addressing the Exceptional Events Rule criteria for prescribed fire on wildland. This guidance will focus on analyses and supporting documentation recommended to show that prescribed fire events on wildland were unlikely to recur at a particular location and were not reasonably controllable or preventable. We intend to post the draft guidance for prescribed fires and instructions for providing public comment on the exceptional events Web site at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events> shortly after finalizing these rule revisions.

Also based on feedback from interested parties, we intend to develop supplementary guidance to describe satisfying the Exceptional Events Rule criteria for stratospheric ozone intrusions. In addition, as we discussed in the proposal and as discussed in more detail in Section IV.C of this preamble, we also intend to develop a supplementary guidance document, *Draft*

Guidance for Excluding Some Ambient Pollutant Concentration Data from Certain Calculations and Analyses for Purposes Other than Retrospective Determinations of Attainment of the NAAQS, to describe the appropriate additional pathways for data exclusion for some “predicted future” monitoring data applications. Once available, the EPA intends to post both draft guidance documents on the exceptional events Web site at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events>.

B. Entities Affected by This Rule

Entities potentially affected directly by this final rule and associated guidance include all state air agencies and local air quality agencies to which a state has delegated relevant responsibilities for air quality management, including air quality monitoring and data analysis. Tribal air agencies operating ambient air quality monitors that produce regulatory data may also be directly affected. Entities potentially affected indirectly by this final rule and related guidance include FLMs of Class I areas, other federal agencies and other entities that operate ambient air quality monitors and submit collected data to the EPA’s Air Quality System (AQS) database.

C. Obtaining a Copy of This Document and Other Related Information

In addition to being available in the docket, we will post an electronic copy of this *Federal Register* document and the final guidance at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events>.

D. Judicial Review

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[INSERT DATE 60 DAYS FROM DATE OF PUBLICATION]**. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

E. Organization of this Federal Register Document

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II. Glossary of Terms and Acronyms

The following are abbreviations of terms used in the preamble.

AQCR	Air Quality Control Region
AQS	Air Quality System
BACM	Best Available Control Measures
BACT	Best Available Control Technology
BLM	Bureau of Land Management
BMP	Best management practice(s)
BSMP	Basic smoke management practices
CAA	Clean Air Act
CASTNET	Clean Air Status and Trends Network
CBI	Confidential business information
CBSA	Core based statistical area
CFR	Code of Federal Regulations
CO	Carbon monoxide
EPA	Environmental Protection Agency
FIP	Federal implementation plan
FLM	Federal land manager responsible for management of a federally owned area that has been designated a Class I area as codified in 40 CFR part 81, subpart D
FR	Federal Register
LAER	Lowest Achievable Emission Rate
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
CH_4	Methane
Mph	Miles per hour
NAAQS	National ambient air quality standard or standards
NEAP	Natural Events Action Plan
NEI	National Emissions Inventory
NH_3	Ammonia
NO_2	Nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOV	Notice of violation
NO_x	Nitric oxides
NPRM	Notice of proposed rulemaking
NPS	National Park Service

NRCS	Natural Resources Conservation Service
NRDC	Natural Resources Defense Council
NWCG	National Wildfire Coordinating Group
NWS	National Weather Service
OAQPS	Office of Air Quality Planning and Standards, U.S. EPA
OMB	Office of Management and Budget
Pb	Lead
PM	Particulate matter
PM ₁₀	Particulate matter with a nominal mean aerodynamic diameter less than or equal to 10 micrometers
PM _{2.5}	Particulate matter with a nominal mean aerodynamic diameter less than or equal to 2.5 micrometers
PRA	Paperwork Reduction Act
PSD	Prevention of significant deterioration
RACM	Reasonably available control measures
RACT	Reasonably Available Control Technology
RFA	Regulatory Flexibility Act
SIP	State implementation plan
SMP	Smoke management program(s)
SO ₂	Sulfur dioxide
TAR	Tribal Authority Rule
TIP	Tribal implementation plan
Tpy	Tons per year
UMRA	Unfunded Mandates Reform Act
USB	U.S. background
USDA	U.S. Department of Agriculture
VOC	Volatile organic compound or compounds

III. Overview of Exceptional Events Statutory Authority, Regulation and Implementation

The EPA's mission includes preserving and improving, when needed, the quality of our nation's ambient air to protect human health and the environment as provided by the CAA. To accomplish this, the EPA develops the NAAQS for criteria pollutants and oversees the states' programs to improve air quality in areas where the current air quality is not in attainment with

the NAAQS and to prevent deterioration in areas where the air quality meets or exceeds the NAAQS. The EPA then evaluates the status of the ambient air as compared to these NAAQS using data collected in the national ambient air quality monitoring network established under the authority of section 319(a) of the CAA.

Congress recognized that it may not be appropriate for the EPA to use certain monitoring data collected by the ambient air quality monitoring network and maintained in the EPA's AQS in certain regulatory determinations. Thus, in 2005, Congress provided the statutory authority for the exclusion of data influenced by "exceptional events" meeting specific criteria by adding section 319(b) to the CAA. To implement this 2005 CAA amendment, the EPA promulgated the 2007 Exceptional Events Rule (72 FR 13560, March 22, 2007).

The 2007 Exceptional Events Rule created a regulatory process codified at 40 CFR parts 50 and 51 (sections 50.1, 50.14 and 51.930). These regulatory sections, which superseded the EPA's previous guidance on handling data influenced by events,² contain definitions, procedural requirements, requirements for air agency demonstrations, criteria for the EPA's approval of the exclusion of event-affected air quality data from the data set used for regulatory decisions and

² Previous guidance and policy documents that either implied or stated the need for special treatment of data affected by an exceptional event include:

(i) *Guideline for the Interpretation of Air Quality Standards*, U.S. EPA, OAQPS No. 1.2-008, Revised February 1977. Available from the National Service Center for Environmental Publications through its document search, retrieval and download capabilities at <https://www.epa.gov/nscep>.

(ii) *Guideline on the Identification and Use of Air Quality Data Affected by Exceptional Events* (the Exceptional Events Policy), U.S. EPA, OAQPS, EPA-450/4-86-007, July 1986.

(iii) *Areas Affected by PM-10 Natural Events* (the PM₁₀ Natural Events Policy), memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, to the EPA Regional offices, May 30, 1996. Available at <http://www.epa.gov/ttn/caaa/t1/memoranda/nepol.pdf>.

(iv) *Interim Air Quality Policy on Wildland and Prescribed Fires*, U.S. EPA. April 23, 1998. Available at <http://www.epa.gov/ttn/oarpg/t1/memoranda/firefnl.pdf>.

(v) *Guideline on Data Handling Conventions for the PM NAAQS*, U.S. EPA, OAQPS, EPA-454/R-98-017, December 1998.

requirements for air agencies³ to take appropriate and reasonable actions to protect public health from exceedances or violations of the NAAQS.⁴

Shortly after promulgation, the Natural Resources Defense Council (NRDC) brought a petition for judicial review challenging certain aspects of the 2007 rule, including the EPA's definition of a natural event and several statements in the preamble concerning the types of events that could qualify as being eligible for exclusion under the rule provisions.⁵ Regarding the definition of a natural event, the D.C. Circuit Court determined that NRDC did not identify its objection during the rulemaking process and, therefore, did not have standing under CAA section 307 to challenge the definition. NRDC also challenged the preamble language addressing high wind events. Because the EPA did not address the subject high wind preamble language in final rule text, the D.C. Circuit Court determined the high wind events section of the 2007 preamble to be a legal nullity.

Air agencies affected by the 2007 rule also raised questions regarding interpretation and implementation. The EPA acknowledges that applying the provisions of the 2007 Exceptional Events Rule has been a challenging process both for the air agencies developing exceptional

³ References to "air agencies" include state, local and tribal air agencies responsible for implementing the Exceptional Events Rule. The regulatory text in the 2007 Exceptional Events Rule often uses "State" to apply to "air agencies." In the context of flagging data and preparing and submitting demonstrations, the role of and options available to air agencies may also apply to federal land managers of Class I areas and other federal agencies managing federal land.

⁴ Per the definition at 40 CFR 50.1(l), an *exceedance with respect to a national ambient air quality standard* means one occurrence of a measured or modeled concentration that exceeds the specified concentration level of such standard for the averaging period specified by the standard. Violations of a standard are standard-specific and are determined by applying the standard-specific procedures for air quality data handling identified in the appendices to 40 CFR part 50. For example, per the requirements in 40 CFR part 50, appendix N, an exceedance of the 2006 24-hour PM_{2.5} NAAQS of 35 µg/m³ occurs when the 24-hour concentration is above 35 µg/m³ on a single day. A violation of the 2006 24-hour PM_{2.5} NAAQS occurs when the 3-year average of the annual 98th percentile 24-hour concentrations is above 35 µg/m³.

⁵ *NRDC v. EPA*, 559 F.3d 561 (D.C. Cir. 2009).

events demonstrations and for the EPA Regional offices reviewing and acting on these demonstrations. In response to these challenges, in May 2013, after extensive outreach culminating in the EPA issuing a *Federal Register* Notice of Availability⁶ seeking broad public review, the EPA finalized the Interim Exceptional Events Implementation Guidance and made these documents publicly available on the exceptional events Web site at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events>.⁷ The EPA simultaneously acknowledged the need to consider additional changes through a notice-and-comment rulemaking effort to revise the 2007 Exceptional Events Rule. Informed by feedback received during the development of the Interim Exceptional Events Implementation Guidance⁸ and feedback received during listening sessions and best practice conference calls,⁹ the EPA issued a notice of proposed rulemaking (NPRM) on November 20, 2015 (80 FR 72840) titled “Treatment of Data Influenced by Exceptional Events” (proposed Exceptional Events Rule Revisions) to address certain substantive issues raised by state, local and tribal co-regulators and other stakeholders and to increase the administrative efficiency of the Exceptional Events Rule criteria and process.

⁶ 77 FR 39959 (July 6, 2012).

⁷ The Interim Exceptional Events Implementation Guidance includes: the *Interim Guidance to Implement Requirements for the Treatment of Air Quality Monitoring Data Influenced by Exceptional Events*, the *Interim Exceptional Events Rule Frequently Asked Questions* (the Interim Q&A document), and the *Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule* (the Interim High Winds Guidance document).

⁸ See comments in Docket ID No. EPA-HQ-OAR-2011-0887.

⁹ The EPA hosted exceptional events listening sessions in August and November of 2013 for interested air agencies, FLMs, other federal agencies, regional planning organizations, non-governmental organizations and other members of the public. The EPA also held conference calls with some air agencies between September 2014 and March 2015 to further discuss exceptional events implementation processes and practices. A summary of these implementation “best practices” is available at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events>.

Although the EPA has undertaken this notice-and-comment rulemaking effort to provide clarity and increase the administrative efficiency of the Exceptional Events Rule demonstration submittal process, the EPA recognizes that developing some exceptional events demonstrations may still be challenging given the case-by-case nature of each event. For this reason, throughout the preamble to this final action, we provide recommendations for language and analyses to include in demonstration packages (*see*, for example, language in Sections IV.E of this preamble, Technical Criteria for the Exclusion of Data Affected by Events, and IV.F, Treatment of Certain Events Under the Exceptional Events Rule). Additional detail regarding specific recommendations is available in the EPA's guidance documents and on the EPA's exceptional events Web site, which the EPA will update to incorporate the finalized rule changes concurrently with or shortly after promulgating the final rule. The EPA also intends to maintain and update the exceptional events submissions table on its Web site with examples of approved submissions. These examples may help air agencies develop demonstration packages; however, they may not contain the minimum level of data or case-specific analyses necessary for all exceptional events demonstrations of the same event type. The EPA encourages air agencies to consult with their EPA Regional office for further guidance on specific demonstrations.

IV. Final Rule Revisions

This final action supersedes the 2007 Exceptional Events Rule and all natural events and exceptional events data handling guidance developed prior to the 2007 Exceptional Events Rule. This final action also supersedes the 2013 Interim Exceptional Events Implementation Guidance until such time as the EPA can revise these documents to reflect the revisions contained in these Exceptional Events Rule Revisions. This final action accomplishes the objectives identified in the proposed Exceptional Events Rule Revisions by promulgating rule language accompanied by

explanation/interpretation in the preamble and/or presenting non-binding guidance in the preamble.

The public comment period for the proposed revisions to the Exceptional Events Rule closed on February 3, 2016. The EPA received 94 unique, timely comments on the proposed rule revisions. The preamble to this final rule discusses the most significant comments received on the proposal and how the EPA considered them in developing the agency's final revisions to the Exceptional Events Rule. The Response to Comments document that accompanies this final rule provides more detailed responses to comments. The public comments received on the proposal and the EPA's Response to Comments document are available in the docket at <http://www.regulations.gov> (Docket ID No. EPA-HQ-OAR-2013-0572).

As a result of feedback received during the public comment period, we have changed the proposed regulatory text and/or non-binding guidance in the preamble in the following ways:

- Modified the provision for FLMs and other federal agencies to prepare and submit exceptional events demonstrations to include a step for the concurrence of the affected state/tribal air agency(ies);
- Modified the definition of an exceptional event to more clearly address drought conditions;
- Modified the list of regulatory actions included within the scope of the Exceptional Events Rule;
- Revised the provision for reliance on controls in an EPA-approved SIP to satisfy the not reasonably controllable or preventable criterion by also including reliance on controls in FIPs and TIPs;

- Modified the required demonstration elements to support the clear causal relationship criterion by moving the table of analyses from the rule text to the preamble where it will serve as guidance;
- Added regulatory text requiring air agencies, federal land managers and burn managers¹⁰ to collaborate and document a process for working together to protect public health and manage air quality during the conduct of prescribed fires on wildland. Such discussions must include outreach and education regarding general expectations for the selection and application of appropriate BSMP and goals for advancing strategies and increasing adoption and communication of the benefits of appropriate basic smoke management practices;
- Identified intended timelines for the EPA’s response in this preamble; and
- Added required regulatory elements for mitigation plans for areas with known, recurring events.

We discuss all of these changes in more detail in this preamble.

A. Applicability of the Exceptional Events Rule: Affected Entities and Pollutants

1. Summary of Proposal

¹⁰ Throughout this preamble and the associated final rule text, we use the terminology “burn manager” to mean the party responsible for supervising a prescribed fire from ignition through fire extinguishing and cleanup, or another party in the same organization who represents, supervises or is supervised by said party and can be a communications pathway to and from such person. Different organizations, states, local agencies and tribes may use the terms burn manager, burn boss, fire manager or another similar term to describe the party with this responsibility. Regardless of the terminology, the actions of the party responsible for prescribed fire management must conform to and be consistent with any applicable local, state or federal laws and regulations, where these laws and regulations exist.

As noted in the proposal, the Exceptional Events Rule applies to all states, to local air quality agencies to whom a state has delegated relevant responsibilities for air quality management including air quality monitoring and data analysis, and to tribal air quality agencies operating ambient air quality monitors that produce regulatory data. The proposal also included new provisions to allow FLMs and other federal agencies to prepare and submit exceptional events demonstrations and data exclusion requests directly to the EPA. We included these provisions for the following reasons, which we expressed in the proposal. First, the CAA language at section 319(b)(3)(B)(i) provides authority for FLMs to initiate and submit such demonstrations and data exclusion requests in the language that reads, “the occurrence of an exceptional event must be demonstrated by reliable, accurate data that is promptly produced and provided by Federal, State, or local government agencies.” Second, FLMs and other federal agencies may operate regulatory monitors¹¹ and submit collected data to the EPA’s AQS database,¹² and emissions from exceptional events could affect these same monitors. Third, allowing FLMs to prepare and submit demonstrations directly to the EPA could expedite the exceptional events demonstration development and submittal process. The EPA solicited comment on our proposal to allow FLMs and other federal agencies to prepare and submit exceptional events demonstrations and data exclusion requests directly to the EPA. In addition,

¹¹ The Ambient Air Quality Surveillance provisions in 40 CFR part 58 include, among other elements, the requirements for monitoring data certification and data submittal and archive in AQS. 40 CFR 58.3 provides that these data reporting requirements specifically apply to state air pollution control agencies and any local air pollution control agency to which the state has delegated authority to operate a portion of the state’s monitoring network.

¹² For a description of one network of monitoring sites operated by federal agencies, *see* the 2014 CASTNET (Clean Air Status and Trends Network) Annual Network Plan, available at https://www3.epa.gov/castnet/docs/CASTNET_Plan_2014_Final.pdf, which applies to National Park Service (NPS) and Bureau of Land Management (BLM) site managers operating CASTNET monitors.

the proposal explained that the final rule might modify the provision that provided for FLMs and other federal agencies preparing and submitting exceptional events demonstrations and data exclusion requests directly to the EPA (*see* 80 FR 72848).

The proposal also reiterated the EPA's interpretation that the Exceptional Events Rule applies to all criteria pollutant NAAQS¹³ based on the language in CAA section 319(b)(3)(B)(iv), which applies to exceedances or violations of "the national ambient air quality standards." The EPA did not specifically request comment on this statement.

2. Final Rule

The Exceptional Events Rule continues to apply to all state air agencies and to local air quality agencies to which a state has delegated relevant responsibilities for air quality management, including air quality monitoring and data analysis. The Exceptional Events Rule also continues to apply to tribal air quality agencies operating ambient air quality monitors that produce regulatory data. All affected air agencies, including tribal air quality agencies, should use the Initial Notification of Potential Exceptional Event process described in more detail in Section IV.G.5 of this preamble, to discuss with their EPA Regional office the most appropriate approach to implementing the provisions of the Exceptional Events Rule.

After considering the public comments, as explained in subsequent paragraphs and the response to comments below, we are finalizing a modified version of our proposal, under which FLMs and other federal agencies could prepare and submit exceptional events demonstrations

¹³ There are NAAQS for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone, particle pollution and sulfur dioxide (SO₂). This applicability includes the primary and secondary NAAQS. At present, most of the secondary NAAQS are identical to the primary NAAQS for the same pollutant, so there is no distinction in how the Exceptional Events Rule applies. To date, the EPA has not encountered an exceptional event situation with respect to a non-identical secondary NAAQS.

and data exclusion requests directly to the EPA if the affected state/tribal air agency(ies) concurs.¹⁴ Presumably, demonstrations and requests for exclusion prepared and submitted by FLMs or other federal agencies would address prescribed fires or wildfires occurring on federally-owned and managed land that influence concentrations at regulatory monitors either on federally-owned and managed land or at state, local, or tribal regulatory monitors. Although the EPA is deferring the appropriate mechanism for concurrence to the affected state or tribal air agency(ies) in accordance with 40 CFR 50.14(a)(1)(ii)(A)(2), the EPA can envision several acceptable approaches, some of which follow.

- An air agency could provide written authorization to the FLMs or other federal agencies owning land or operating air quality monitoring stations to prepare and directly submit exceptional events demonstrations to the EPA. Any such authorization must conform to and be consistent with any applicable state laws and regulations. The written authorization (*i.e.*, letter from the air agency official responsible for preparing demonstrations) would specify the conditions under which the FLM could submit a demonstration directly to the EPA and whether the FLM could initiate the Initial Notification of Potential Exceptional Event (either with or without including the affected air agency(ies) in this process). The affected air agency would submit a copy of the authorization to the reviewing

¹⁴ We note that any agency, group or individual could submit an exceptional events demonstration. However, the EPA is obligated to consider only those submittals that meet the requirements of this final rule and come from authorized agencies (*i.e.*, all states; local air quality agencies to whom a state has delegated relevant responsibilities for air quality management including air quality monitoring and data analysis; tribal air quality agencies operating ambient air quality monitors that produce regulatory data; and FLMs or other federal agencies to whom the relevant state has granted approval). Further, the EPA cannot take action on material submitted by an unauthorized party.

EPA Regional office either in advance of the demonstration submittal and/or with the Initial Notification of Potential Exceptional Event process associated with a specific event or events. An air agency selecting this option would need to provide the submitting FLM or other federal agency with a case-by-case concurrence in accordance with 40 CFR 50.14(a)(1)(ii)(A)(2), which requires that a demonstration-specific concurrence from the air agency accompany each submittal. The FLM would include the concurrence with its submission to the EPA.

- An air agency could agree, on a case-by-case basis, to allow an FLM or other federal agency to develop and submit a complete demonstration for an event or events directly to the EPA. Under this scenario, the air agency could notify the EPA during the Initial Notification of Potential Exceptional Event process that an FLM will submit demonstration(s) for a particular event(s) or particular types of events, specifying the event type(s), pollutant(s) and date(s). An air agency selecting this option would need to provide the submitting FLM or other federal agency with a case-by-case concurrence, in accordance with 40 CFR 50.14(a)(1)(ii)(A)(2), which the FLM would include with its submission to the EPA.
- The air agency could ask the FLM to prepare the agreed-upon demonstration for submittal to the affected air agency. The FLM would then independently prepare the demonstration and submit it to the affected air agency. The air agency, in turn, could submit the demonstration to the EPA with a cover letter indicating that the FLM or federal agency prepared the demonstration, that the affected state/tribal

air agency agrees with the content and the affected state/tribal air agency requests that the EPA review and take action on the submitted demonstration.

- Another option might consist of the air agency and the affected FLM collaboratively developing demonstrations for submittal by the affected air agency. In this scenario, the air agency and the FLM would likely agree to a division of responsibilities for specific analyses or sections of a demonstration.

If an air agency agrees that FLMs or other federal agencies may prepare and submit exceptional events demonstrations and data exclusion requests directly to the EPA, then the FLM-prepared demonstrations must meet all of the provisions in the Exceptional Events Rule, including the requirement for a public comment period on a prepared demonstration¹⁵ and the requirements related to schedules and procedures for demonstration submittal that apply to state agencies that operate the affected monitors. Regardless of the approach selected, the EPA encourages discussions between the FLM and the affected state/tribal air agency(ies) similar to those described in the Initial Notification of Potential Exceptional Event process (*see* Section IV.G.5 of this preamble) to ensure that the FLM and the air agency(ies) share a common understanding regarding the potential event, share relevant information and data, and understand the timeline for flagging data in AQS and submitting the demonstration. A number of areas have established local or regional collaboratives whose goals include improving the health of local ecosystems (*e.g.*, wildlands), increasing community resiliency to wildfire, communicating air

¹⁵ A public comment opportunity is important prior to submission to the EPA because under the Exceptional Events Rule, the EPA is not required to provide a public comment opportunity prior to concurring or non-concurring with an air agency's request to exclude data. The EPA generally provides a public comment opportunity before using air quality data, with or without such exclusions, in a final regulatory action. States typically provide an opportunity for public comment by posting draft demonstrations on a Web site. Federal agencies could do the same.

quality and public health impacts and communicating the results and benefits of prescribed fire management and implementation programs.¹⁶

Also related to the entities affected by the Exceptional Events Rule, the proposal asserted that, as the single actor responsible for administering air quality planning and management activities within its jurisdictional boundaries, the state, exclusive of tribal lands, is ultimately responsible for submitting exceptional events demonstrations for exceedances that occur at all regulatory monitoring sites within the boundary of the state. While the state can request that FLMs or other federal agencies or local agencies to which a state has authorized relevant responsibilities develop and submit exceptional events demonstrations for events that influence concentrations at regulatory monitors operated by these entities, the state can always submit demonstrations for events that meet the requirements of the Exceptional Events Rule for any regulatory monitor within its jurisdictional bounds, including those operated by FLMs, other federal agencies and delegated local agencies. The state retains the authority to decide whether to concur with and forward an exceptional events submittal generated by another agency. For example, if a state does not concur with the local agency's, FLM's, other federal agency's or other entity's exceptional events claim, the state can decide not to forward the submittal to the EPA even if the state has authorized the federal or local government agencies (who are also authorized by the CAA to produce and provide data) to prepare and submit demonstrations directly to the EPA. At the suggestion of several commenters, the EPA is adding regulatory

¹⁶ See, for example, the Fire Memorandum of Understanding (MOU) Partnership, consisting of multiple state and federal forestry agencies, prescribed fire councils and conservation agencies, who work collaboratively with air agencies in California to resolve issues related to managed fire and protection of public health. Additional information available at http://www.sierraforestlegacy.org/CF_ManagingFire/FireMOU.php and in comment number EPA-HQ-OAR-2013-0572-0138.

language to 40 CFR 50.14(a)(1)(ii) to clarify this point. Where questions arise, the reviewing EPA Regional office can provide assistance and direction as part of the Initial Notification of Potential Exceptional Event process. In addition to requesting that FLMs, other federal agencies or delegated local agencies prepare or assist in the preparation of demonstration analyses, a state can also request the same of industrial facilities operating regulatory monitors experiencing event-influenced exceedances. The EPA cannot act on demonstrations submitted directly by industrial facilities. The authorizing state is responsible, at its discretion, for submitting demonstrations prepared by industrial entities.

Consistent with our proposal, we are also promulgating regulatory language at 40 CFR 50.14(a)(1)(i) that the Exceptional Events Rule applies to the treatment of data showing exceedances or violations of any criteria pollutant NAAQS. AQS retains the capability for air agencies to flag all criteria pollutant data and for the EPA to concur, as appropriate, on requests for exclusion.

3. Comments and Responses

Although three commenters agreed with the EPA's proposal to allow FLMs and other federal agencies to initiate a request for data exclusion if the FLM either operates a regulatory monitor that has been affected by an exceptional event or manages land on which an exceptional event occurred that influenced a monitored concentration at a regulatory monitor, the large majority of commenters disagreed with this proposed provision. State and local air agencies, as well as several regional planning organizations, commented that it is inappropriate for the EPA to allow agencies that are not directly responsible and accountable for managing and/or assuring air quality to submit exceptional event demonstrations or data exclusion requests. Several commenters noted that FLMs and other federal agencies may have different functions and

priorities and that the protection of air quality and public health may not be a primary objective. Some of these same commenters noted that while the proposed rule language at 40 CFR 50.14(a)(1)(ii)(A)(2) allowed another agency to initiate a request “only after discussing such submittal with the State in which the affected monitor is located,” “discussing” does not require “agreement” from the state or a requirement that the FLM incorporate the state’s feedback into its submittal. These commenters stated that, under the proposed requirements, an FLM could submit a request to exclude data over the objections of the state with primary responsibility to regulate air quality, which could potentially create legal conflicts between agencies. Another commenter suggested allowing FLMs to submit demonstrations only for regulatory monitors owned by the FLM or located on FLM-managed land rather than for state-owned and operated monitors influenced by an event (*e.g.*, fire) on FLM-managed land. Two states and one industry association commenter suggested following an approach allowing, on a case-by-case basis, FLMs to submit demonstrations and requests for data exclusion if the affected state/tribal air agency(ies) agrees and if the FLM works with the affected state/tribal air agency(ies) through the demonstration development and submittal process.

The EPA continues to believe that allowing FLMs to prepare and submit demonstrations directly to the EPA could expedite the exceptional events demonstration development and submittal process because, in many cases, the lands managed and/or owned by federal entities are not entirely within the jurisdictional boundary of a single state or local government and because federal entities may either initiate prescribed fires or fight wildfires on lands managed and/or owned by federal entities. We also recognize that under the CAA, states, exclusive of tribal lands, are primarily responsible for the administration of air quality management programs within their borders, which includes monitoring and analyzing ambient air quality, submitting

monitoring data to the EPA, which are then stored in the EPA's AQS database, and identifying measurements that may warrant special treatment under the Exceptional Events Rule. As commenters have noted, and as the EPA recognizes, FLM submittal of exceptional events demonstrations and air agency objectives for air quality management may conflict. Federal land managers do play an important role in helping states and tribes improve the air quality in those areas that do not meet the NAAQS. The General Conformity Rule requires that federal agencies work with state, tribal and local governments in nonattainment and maintenance areas to ensure that federal actions conform to any applicable SIP, FIP or TIP. However, because states and tribes are ultimately responsible for administering air quality management programs within their borders, which could include addressing air quality and health impacts from wildfire emissions, the EPA is finalizing a modified version of our proposal, under which FLMs and other federal agencies could prepare and submit exceptional events demonstrations and data exclusion requests directly to the EPA with the agreement of the affected state/tribal air agency(ies). We believe that this approach, which requires the agreement of the affected state/tribal air agency(ies), could encompass all of the alternative approaches noted by commenters representing state, local and regional planning organizations. Deferring the approach to achieve agreement to the affected air agencies provides individual air agencies with the flexibility to account for any state/tribal-specific authorities that may limit an agency's ability to regulate certain types of air quality concerns. Fire plays a critical role in restoring resilient ecological conditions in our wildlands. In addition, the increased use of prescribed fire and managed wildfire can reduce the effects of catastrophic wildfire. The EPA strongly encourages collaboration between the FLMs and other federal agencies and the appropriate state/tribal air

agency(ies) during the event identification and demonstration development process regardless of who ultimately submits the demonstration.

Also concerning the entities affected by the Exceptional Events Rule, one commenter asked for clarification regarding whether industrial facilities operating regulatory monitors can submit demonstrations directly to the EPA. Other commenters asked that the EPA clarify whether states and tribes can always submit demonstrations for any monitors within their jurisdictional bounds. These commenters also asked whether the EPA would allow and/or evaluate “competing” demonstrations.

The EPA notes in the final rule section of this preamble that while industrial facilities may operate regulatory monitors that experience event-influenced exceedances and, at the request of the state, such facilities may prepare demonstrations for these exceedances, the EPA cannot act on demonstrations submitted directly by industrial facilities. The CAA language at section 319(b)(3)(B)(i) reads, “the occurrence of an exceptional event must be demonstrated by reliable, accurate data that is promptly produced and provided by Federal, State, or local government agencies.” Additionally, the CAA language at 319(b)(3)(B)(iv) requires that the EPA’s implementing regulations provide that “there are criteria and procedures for the Governor of a State to petition the Administration to exclude air quality monitoring data....” Under the CAA, states, exclusive of tribal lands, are primarily responsible for the administration of air quality management programs within their borders. States can delegate relevant responsibilities for air quality management to local agencies, but the CAA does not provide for delegation of these responsibilities to industrial facilities. Where industrial facilities operate regulatory monitors, the state is ultimately responsible for ensuring that collected data are uploaded into AQS and for verifying the accuracy of these data. Thus, the authorizing state, at its discretion, is

responsible for submitting any demonstrations prepared by industrial entities. The EPA has also clarified in the preamble that a state (or tribe) can always submit demonstrations for events that meet the requirements of the Exceptional Events Rule for any regulatory monitor within its jurisdictional bounds, including those operated by FLMs, other federal agencies, delegated local agencies, and industrial facilities. We have added regulatory language to 40 CFR 50.14(a)(1)(ii) to clarify this point.

Another commenter noted that CAA section 319(b)(3)(B)(i) provides that “the occurrence of an exceptional event must be demonstrated by reliable, accurate data that is promptly produced and provided by Federal, State, or local government agencies.” The commenter maintains that this provision allows federal, state or local government agencies to produce and provide data, but not to prepare and submit demonstrations.

The EPA agrees that the identified CAA language grants specific authority to state, federal and local government agencies to produce and provide data. The EPA also notes, however, that nothing in the CAA language at 319 explicitly restricts federal and local government agencies from submitting demonstrations if the state agrees. Section 319(b)(3)(B)(iv) of the CAA directs the EPA to develop criteria and procedures for the “Governor of a State to petition the Administrator to exclude air quality monitoring data....” The EPA’s implementing regulatory language at 40 CFR 50.14(b)(1) says that the EPA shall exclude data from use in determinations of exceedances and NAAQS violations where a state demonstrates to the EPA’s satisfaction that an exceptional event caused a specific air pollution concentration in excess of one or more NAAQS. The language “where a State demonstrates” has historically been interpreted to mean that only states can initiate the exceptional events process and submit demonstrations. A state may delegate the authority for preparing and submitting

demonstrations to local government agencies that are authorized by the CAA to produce and provide data. In this action, the EPA is promulgating regulatory language that authorizes federal agencies to prepare and submit demonstrations if the affected state concurs, on a case-by-case basis, on the preparation and submission of demonstrations by those federal agencies.

Submissions by delegated local agencies and/or state-concurred demonstrations by federal agencies have the effect of a state “demonstration.” Additionally, the state maintains the ultimate responsibility for submitting exceptional events demonstrations for events influencing concentrations at any regulatory monitor within its jurisdictional bounds.

Two tribal commenters asked the EPA to clarify how the provisions in the Exceptional Events Rule apply to tribes. One of these commenters asked that this clarification include regulatory text to define “state” and “tribe.” The EPA is not adding regulatory text to define “state” and “tribe,” but instead intends to apply the definitions set forth in the Tribal Authority Rule (TAR) at 40 CFR 49.2. At 40 CFR 49.2(c), an Indian tribe or tribe is defined as “any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village, which is federally recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.” Section 40 CFR 49.2(e) defines a state as “a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the Northern Mariana Islands.”

We further clarify the applicability to tribes by reiterating the language that appears in Section IV.A.1 of this preamble, which states that the Exceptional Events Rule applies to all states; to local air quality agencies to whom a state has delegated relevant responsibilities for air quality management including air quality monitoring and data analysis; and to tribal air quality agencies operating ambient air quality monitors that produce regulatory data. Throughout the

preamble and regulatory language associated with this final action, we use the terminology “state,” “tribe” and “air agency” somewhat interchangeably. Footnote 3 in this document clarifies that references to “air agencies” are meant to include state, local and tribal air agencies responsible for implementing the Exceptional Events Rule. The regulatory text in the 2007 Exceptional Events Rule often uses “State” to apply to “air agencies.” To be an affected entity for purposes of this rule, the air agency must first operate one or more ambient air quality monitors that produce regulatory data. The provisions of this rule apply uniformly to state and tribal air agencies (and to authorized federal and local agencies) that meet this condition. Tribal air quality agencies that operate air quality monitoring networks that produce regulatory data that are affected by emissions from exceptional events should consult with the EPA Regional office prior to addressing the procedures and requirements associated with excluding data that have been influenced by exceptional events. As we have in the past, the EPA will continue to work with tribes in implementing the provisions of the Exceptional Events Rule, including these rule revisions.

We neither solicited nor received comment regarding applying the provisions of the Exceptional Events Rule to the treatment of data showing exceedances or violations of any criteria pollutant NAAQS and we are making no changes to the rule with respect to this issue.

B. Definition and Scope of an Exceptional Event

1. Summary of Proposal

The EPA proposed and solicited comment on the following generally applicable changes to the 2007 Exceptional Events Rule with respect to clarifying what constitutes an exceptional event:

- Revising the definition of exceptional event by including the concept of considering the combined effects of an event and the resulting emissions.
- Removing the “but for” element.
- Moving the “clear causal relationship” element into the list of criteria that explicitly must be met for data to be excluded.
- Subsuming the “affects air quality” element into the “clear causal relationship” element.
- Removing the requirement to provide evidence that the event is associated with a measured concentration in excess of “normal historical fluctuations including background” and replacing it with a requirement for a comparison of the event-related concentration to historical concentrations.

The proposal provided a detailed rationale for each of these proposed changes, which we summarize here.

With respect to revising the definition of an exceptional event by including the combined effects of an event and the resulting emissions, the proposal noted that a physical event may or may not generate emissions and these emissions may or may not reach a regulatory monitor and result in an exceedance or violation of a NAAQS. Each of these components (*i.e.*, a physical event that generates emissions, transport of event-generated pollution to a monitor, and an exceedance or violation at a regulatory monitor) is necessary for an event to qualify as an exceptional event. The EPA would not consider the physical event (*e.g.*, a high wind or the wildfire) to be an exceptional event unless the resulting event-generated pollution (*e.g.*, particulate matter (PM) or ozone) reached and caused an exceedance or violation at a monitoring location or locations.

The EPA elaborated on this concept by providing several examples, one of which was drought. The proposal stated that while the CAA definition of an exceptional event excludes “a meteorological event involving high temperatures or lack of precipitation,” the EPA recognizes that high temperatures and drought conditions can contribute to exceedances and violations caused by other exceptional events, such as high wind dust events. The proposal further noted that if an air agency submits evidence showing that a severe drought that resulted in arid conditions (*e.g.*, lower than typical soil moisture content, decreased vegetation) was combined with an event (*e.g.*, a high wind event) that falls within the CAA definition of an exceptional event and meets all of the requirements, provisions and criteria in the Exceptional Events Rule, then these data could be considered eligible for exclusion under the provisions of the Exceptional Events Rule. The proposal also stated that high temperatures, stagnations and inversions alone would not be eligible for exclusion under the Exceptional Events Rule by the very clear provisions of the CAA. The proposal stated the EPA’s belief that Congress intended air agencies to compensate for the effects of high temperature, stagnation and inversions through the development of SIPs.

In our November 2015 action, the EPA proposed to rely more directly upon the statutory requirement at CAA section 319(b)(3)(B)(ii) by removing the regulatory requirement at 40 CFR 50.14(c)(3)(iv)(D) that “there would have been no exceedance or violation but for the event” (*i.e.*, the “but for” criterion). The proposal explained that in the 2007 Exceptional Events Rule, the EPA derived the “but for” criterion from the language at CAA section 319(b)(3)(B)(ii), which requires “a clear causal relationship...between the measured exceedances...and the exceptional event to demonstrate that the exceptional event caused a specific air pollution

concentration at a particular air quality monitoring location”¹⁷ and the requirement that there be “criteria and procedures for the Governor of a State to petition the Administrator to exclude...data that is *directly due* to the exceptional events.”¹⁸ Air agencies and the EPA have, in some cases, historically interpreted the “but for” criterion as implying the need for a strict quantitative analysis of the estimated air quality impact from the event. To clarify the intended approach, the EPA proposed removing the “but for” regulatory language and focusing on the “clear causal relationship” statutory criterion applied to the specific case, using a weight of evidence approach.

The proposal also modified the regulatory language in 40 CFR 50.14(c)(3)(iv) to more clearly indicate, consistent with the CAA directive, the requirement to “demonstrate” versus to merely “provide evidence” that a clear causal relationship must exist between the specific event and the monitored exceedance. Also consistent with Congressional intent and air agencies’ and the EPA’s experience in implementing the 2007 Exceptional Events Rule, the EPA proposed to integrate the phrase “affected air quality” into the clear causal relationship criterion. The proposal explained that separately requiring an air agency to provide evidence to support a conclusion that an event “affects air quality” is unnecessary in light of a mandatory clear causal relationship showing. The proposal expressed that if an air agency demonstrates that an event has a clear causal relationship to an exceedance or violation of a NAAQS, then the event has certainly affected air quality.

¹⁷ The EPA believes that the terminology “specific air pollution concentration” refers to the identified exceedance or violation rather than a specific increment in the measured concentration, which implies quantitative source attribution and a supporting quantitative analysis.

¹⁸ CAA section 319(b)(3)(B)(iv) (emphasis added).

Finally, the EPA proposed to remove the requirement for air agencies to provide evidence that the event is associated with a measured concentration in excess of “normal historical fluctuations including background” and replace it with a requirement to compare the event-influenced concentration to historical concentrations. The proposal clarified that an air agency does not need to prove a specific “in excess of” fact in developing these comparisons to historical concentrations. The EPA proposed these comparisons to support the clear causal relationship criterion.

The proposal stressed that making these changes would result in returning to the following three core statutory elements of CAA section 319(b) that air agencies must meet when requesting that the EPA exclude event-related concentrations from regulatory determinations:

- The event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation,
- The event was not reasonably controllable or preventable, and
- The event was a human activity that is unlikely to recur at a particular location or was a natural event.

We proposed to include these core statutory elements in the revised regulatory definition of an exceptional event.

2. Final Rule

As proposed, and as supported by numerous commenters, we are finalizing and incorporating into the regulatory definition of an exceptional event the following three core statutory elements of CAA section 319(b) that air agencies must meet when requesting that the EPA exclude event-related concentrations from regulatory determinations:

- The event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation,
- The event was not reasonably controllable or preventable, and
- The event was a human activity that is unlikely to recur at a particular location or was a natural event.

This section of the final rule preamble focuses on the definition of an exceptional event particularly as it incorporates these three elements. We discuss additional detail surrounding the individual criteria (*i.e.*, clear causal relationship, not reasonably controllable or preventable and human activity/natural event) in Section IV.E of this preamble, Technical Criteria for the Exclusion of Data Affected by Events.

While we are incorporating the previously identified elements into the definition of an exceptional event, after considering the public comments, as discussed more fully in the following paragraphs, we are finalizing the following slightly modified version of our proposed definition of an exceptional event: *Exceptional event* means an event(s) and its resulting emissions that affect air quality in such a way that there exists a clear causal relationship between the specific event(s) and the monitored exceedance(s) or violation(s), is not reasonably controllable or preventable, is an event(s) caused by human activity that is unlikely to recur at a particular location or a natural event(s), and is determined by the Administrator in accordance with 40 CFR 50.14 to be an exceptional event. It does not include air pollution relating to source noncompliance. Stagnation of air masses and meteorological inversions do not directly cause pollutant emissions and are not exceptional events. Meteorological events involving high temperatures or lack of precipitation (*i.e.*, severe, extreme or exceptional drought) also do not

directly cause pollutant emissions and are not considered exceptional events. However, events involving high temperatures or lack of precipitation may promote occurrences of particular types of exceptional events, such as wildfires or high wind events, which do directly cause emissions. We presented this concept in the proposal (*see* 80 FR 72848), and the EPA is codifying it in the final rule to prevent confusion, as explained below.

After considering the public comments received, as discussed as follows, we have included in the revised regulatory definition the concept of “event” or “events” to convey that one or more events and their resulting emissions could be eligible for consideration in the aggregate under the provisions in 40 CFR 50.14. We have also revised the definitional language to “monitored exceedance(s) or violation(s)” to indicate that a single event can cause multiple NAAQS exceedances or violations either occurring on the same day at multiple monitors or occurring at one or more monitors on multiple days. The revised definition also clarifies, at the suggestion of a commenter, our position with respect to “meteorological events involving high temperatures or lack of precipitation” (*i.e.*, severe, extreme or exceptional drought). We include the qualifiers “severe, extreme or exceptional drought” to distinguish drought categories from abnormally dry conditions. In using this language, we incorporate by reference the conditions described in the U.S. Drought Monitor available at <http://droughtmonitor.unl.edu/> and produced through a partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture (USDA) and the National Oceanic and Atmospheric Administration (NOAA).

3. Comments and Responses

In considering the three core statutory elements of CAA section 319(b), we note that both the not reasonably controllable or preventable criterion and the human activity/natural event

criterion are from the statutory language defining the term “exceptional event” at CAA section 319(b)(1)(A). The criterion that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation combines the statutory “affects air quality” definitional element at CAA section 319(b)(1)(A) with the “clear causal relationship” statutory requirement at CAA section 319(b)(3)(B) and removes the regulatory-only “but for” language. Because this section of the final rule preamble focuses on the definition of an exceptional event particularly as it incorporates the statutory elements, we address comments related to the statutory elements here and discuss the application of each of these elements in Section IV.E of this preamble.

Numerous commenters supported, and one commenter representing several environmental groups opposed, the EPA’s incorporating the “affects air quality” criterion into the clear causal relationship element. Commenters supporting this approach agreed with the EPA’s position that if an air agency demonstrates that an event has a clear causal relationship to an exceedance or violation of a NAAQS, then the event has certainly affected air quality and that a submitting air agency does not need to address “affects air quality” as a distinct component. The commenter opposing this approach noted that the EPA cannot escape the plain language of the CAA that “affects air quality” and “clear causal relationship” are two requirements and must be addressed individually. The EPA does not disagree that in the definition of exceptional event, the CAA language at section 319(b)(1)(A)(i) specifically identifies “affects air quality” as a defining term. CAA section 319 does not, however, provide any indication regarding how an air agency should demonstrate that an event “affects air quality.” Rather, the requirements set forth at CAA section 319(b)(3)(B) indicate that the EPA’s implementing regulations shall provide that (i) the occurrence of an exceptional event must be demonstrated by reliable, accurate data that

are promptly produced and provided by federal, state or local government agencies; (ii) a clear causal relationship must exist between the measured exceedances of a NAAQS and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location; (iii) there is a public process for determining whether an event is exceptional; and (iv) there are criteria and procedures for the Governor of a state to petition the Administrator to exclude air quality monitoring data that are directly due to exceptional events from use in determinations by the Administrator with respect to exceedances or violations of the NAAQS. In subsuming the “affects air quality” element into the “clear causal relationship” criterion we are simply defining the approach by which an air agency must show that the event affected air quality.

Similarly, the large majority of commenters supported, and three commenters representing environmental groups opposed, the EPA’s proposal to remove the “but for” criterion. The commenters opposing the removal of the “but for” criterion explain that the EPA correctly acknowledged in the 2007 rule that the “but for” criterion was derived from the following two statutory requirements: (1) CAA section 319(b)(3)(B)(ii), which requires “a clear causal relationship...between the measured exceedances...and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location” and (2) CAA section 319(b)(3)(B)(iv), which requires that the EPA develop “criteria and procedures for the Governor of a State to petition the Administrator to exclude...data that is *directly due* to the exceptional events.” (Emphasis added.) The commenters argue that the EPA’s proposal to rely more directly upon the “clear causal relationship” statutory element effectively ignores the statutory requirement that excluded data be “...*directly due* to the exceptional events.” The EPA disagrees with the commenters on this

point. While we are finalizing our proposal to remove the “but for” regulatory requirement, we are retaining the “direct causal” statutory language in the regulatory definition of exceptional event. This revised regulatory language, along with our provided example analyses in this preamble (*see* Section IV.E.3 of this preamble) and in our associated guidance documents, more clearly conveys the strength and robustness of our intended weight of evidence approach¹⁹ and removes some of the challenges associated with implementing a strict “but for” demonstration.²⁰ Further, the “directly due” concept is represented through the totality of the requirements in the revisions to the Exceptional Events Rule that we are promulgating, including that a demonstration show a “clear causal relationship” between “an event(s) and its resulting emissions” and “the monitored exceedance(s) or violation(s).”

Part of promulgating rule text that is consistent with the core statutory element that “the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation” involves removing the regulatory requirement in 40 CFR 50.14(c)(3)(iv)(C) that a state must submit evidence that the event is

¹⁹ As we indicated in our November 2015 proposal and in the preamble to the 2007 Exceptional Events Rule, an air agency’s “but for” analysis does not necessarily need to be precise. Rather, we indicated that the EPA would use a holistic “weight of evidence” approach in analyzing submitted demonstration packages. The 2007 preamble further explained that a “weight of evidence demonstration can present a range of possible concentrations, which is not as technically demanding as justifying a specific adjustment to a measured value.” (*See* 72 FR 13570, March 22, 2007).

²⁰ Since promulgation of the 2007 rule, the “but for” criterion has often been interpreted as implying the need for a strict quantitative analysis to show a single value, or at least an explicitly bounded plausible range, of the estimated air quality impact from the event. As a result, some air agencies began using burdensome approaches to provide quantitative analyses in their exceptional events demonstrations to show that the event in question was a “but for” cause of a NAAQS exceedance or violation in the sense that without the event, the exceedance or violation would not have occurred. In many cases, the “but for” role of a single source or event is difficult to determine with certainty and it is more often the case that the impact of emissions from events and other sources cannot be separately quantified and distinguished.

associated with a measured concentration in excess of normal historical fluctuations, including background. We are finalizing our proposal to remove this language and replace it with regulatory text requiring a comparison of the event-influenced concentration to historical concentrations. We discuss comments associated with this revision in Section IV.E.3.c of this preamble.

Multiple commenters supported the EPA's proposal to revise the definition of an exceptional event to include the event and resulting emissions. We have also incorporated the suggestion of one commenter to indicate in regulatory text, through the plural word "events," that an aggregation of events and their resulting emissions could be eligible for consideration under the provisions in 40 CFR 50.14. We discuss the aggregation of events in more detail in Section IV.G.1 of this preamble. We believe that this concept also applies to exceedances and violations, so we extended the use of plural terminology to this part of the exceptional events definition to more clearly acknowledge that an event may cause multiple exceedances (*e.g.*, exceedances at multiple monitors or multiple exceedances at a single monitor) or violations.

Regarding exceedances and violations, one commenter asked the EPA to clarify whether values that are not themselves exceedances or violations, but raise the design value such that the design value exceeds the NAAQS can be considered as exceptional events. The EPA recognizes that events can make an air concentration significantly higher than it would have been in the absence of the event contribution and elevate the 3-year design value for a NAAQS pollutant. However, the concentration values used in calculating a violating 3-year design value could be considered for exclusion under the Exceptional Events Rule only if the concentration itself is an exceedance or results in a violating design value. If the elevated concentration is not itself an exceedance nor does it result in a violating design value, then the value in question could not be

considered as an exceptional event. As we explained in the proposal and restate here, while not an exceptional event, retaining such data in the calculation of a design value can elevate the design value and, for a nonattainment area seeking the EPA's approval of an attainment demonstration, make it seem that the area needs more emissions reduction to attain the NAAQS than is actually the case. Because these data are not exceptional events, we do not address exclusion under this rule. We do, however, discuss this scenario in more detail in Section IV.C of this preamble.

Another commenter suggested that, for regulatory clarity, we incorporate our interpretation of "meteorological events involving high temperatures or lack of precipitation" (*i.e.*, drought) into regulatory text. We agree with the commenter and have clarified, through the regulatory definition of an exceptional event, the position that we expressed in the proposal preamble, which is that drought alone does not create emissions and therefore does not meet the definition of an exceptional event. Rather, drought can result in arid conditions that can combine with or exacerbate the effects of events that meet the requirements, provisions and criteria of the Exceptional Events Rule.²¹ Because there may be many definitions of drought, we also clarify that we are referring to "severe, extreme or exceptional drought" as defined by the U.S. Drought Monitor. We are not including other drought categories in this discussion, nor would other drought categories alone be considered exceptional events.

Also related to the definition of an exceptional event, one commenter asked the EPA to include within the definition of an event both short-term and long-term contributors to elevated pollutant concentrations. The commenter further asked the EPA to address the applicability of

²¹ Drought can also exacerbate the air quality impact of activities that do not meet the criteria of the Exceptional Events Rule, such as dust from vehicular travel on unpaved roads.

the Exceptional Events Rule to “background” ozone and background pollutant concentrations in general. The EPA does not agree with the commenter’s suggestion to add the language or concept of “short-term and long-term contributors” to the regulatory definition of an exceptional event. The EPA believes that the definition that we are promulgating could include both short- and long-term contributors provided the contributors meet the operative provisions in the rule. The EPA will review each request under the Exceptional Events Rule on a case-by-case basis using a weight of evidence approach.

With respect to addressing rule applicability to “background” ozone, the EPA refers to the recent *Implementation of the 2015 Primary Ozone NAAQS: Issues Associated with Background Ozone White Paper for Discussion*.²² As defined in this white paper, U.S. background (USB) ozone is any ozone formed from sources or processes *other than* U.S. manmade emissions of nitrogen oxides (NO_x), volatile organic compounds (VOC), methane (CH₄), and CO.²³ USB ozone does not include intrastate or interstate transport of manmade ozone or ozone precursors. While some sources that contribute to USB (*e.g.*, wildfires, stratospheric intrusions) may be eligible for treatment as exceptional events, other sources of USB would not meet the Exceptional Events Rule criteria. For example, routine or long-term international manmade emissions are not exceptional events because they are caused by human activity that is *likely to recur* at a given location; likewise, routine biogenic VOC emissions are not exceptional events because they are not deviations from normal or expected conditions. Thus despite being natural, they are not “events.” The EPA provides additional information regarding

²² *Implementation of the 2015 Primary Ozone NAAQS: Issues Associated with Background Ozone White Paper for Discussion*, U.S. EPA, December 2015. Available at <https://www.epa.gov/sites/production/files/2016-03/documents/whitepaper-bgo3-final.pdf>.

²³ 80 FR 65292 (October 26, 2015).

the treatment of certain events under the Exceptional Events Rule in Section IV.F of this preamble.

C. Ambient Concentration Data and Data Uses Affected by the Exceptional Events Rule

1. Summary of Proposal

In our November 2015 document, the EPA proposed in regulatory language to interpret the CAA section 319(b) phrase “determinations by the Administrator with respect to exceedances or violations of national ambient air quality standards” to encompass determinations of current²⁴ or historical NAAQS exceedances/violations or non-exceedances/non-violations and determinations of the air quality “design value” at particular receptor sites when made as part of the basis for any of the following five types of regulatory actions:²⁵

- An action to designate or redesignate an area as attainment, unclassifiable/attainment, nonattainment or unclassifiable for a particular NAAQS. Such designations rely on the existence or lack of a violation at a monitoring site in or near the area being designated.
- The assignment or re-assignment of a classification category (marginal, moderate, serious, etc.) to a nonattainment area to the extent this is based on a comparison of its “design value” to the established framework for such classifications.

²⁴ The term “current” denotes the determination at issue in the current analysis. In actual practice, such determinations are based on historical data and thus reflect a past actual condition.

²⁵ The proposal noted that when one of these determinations is based on a combination of monitoring data and air quality modeling, the criterion requiring that there be a clear causal relationship between the event and a NAAQS exceedance or violation will apply to the combined estimate of air pollution levels rather than on the directly monitored background air quality data. That is, the event would not be required to have caused an actual exceedance or violation at the background ambient monitoring site, but rather to have made the critical difference in the combined estimate of air pollution levels (background plus source impact) resulting in a NAAQS exceedance or violation, because the event increased the background levels that are added to the air quality modeling output.

- A determination regarding whether a nonattainment area has attained a NAAQS by its CAA deadline.
- A determination that an area has had only one exceedance in the year prior to its deadline and thus qualifies for a 1-year attainment date extension, if applicable.
- A finding of SIP inadequacy leading to a SIP call to the extent the finding hinges on a determination that the area is violating a NAAQS.

In proposing this language, the EPA effectively applied the exceptional events process to these related types of determinations and across the NAAQS, which we believe is an appropriate interpretation of the CAA 319(b) phrase “determinations by the Administrator with respect to exceedances or violations of national ambient air quality standards.” For the identified types of determinations, the EPA proposed to exclude event-affected data only if an air agency satisfies the procedural (*e.g.*, event identification, opportunity for public comment, demonstration submission) and substantive (*i.e.*, clear causal relationship, not reasonably controllable or preventable, and human activity not likely to recur or natural event) requirements of the exceptional events process. The proposal also repeated the EPA’s previous position that once data are excluded under the Exceptional Events Rule, these same data also should be excluded from (i) design value estimates and AQS user reports (unless the AQS user specifically indicates that they should be included), (ii) selecting appropriate background concentrations for prevention of significant deterioration (PSD) air quality analyses and transportation conformity hot spot

analyses, and (iii) selecting appropriate ambient data for projecting future year concentrations as part of a modeled attainment demonstration.²⁶

The proposal also noted that while data exclusion associated with the five actions in the previously noted bulleted list *must* follow the provisions in the Exceptional Events Rule, there are other actions for which it may be appropriate to exclude data using mechanisms other than the Exceptional Events Rule. The proposal differentiated between these five actions and other actions based on “past” versus “predicted” exceedances and/or violations. The proposal explained that the five identified actions involve determinations of whether a NAAQS exceedance or violation occurred at an ambient monitoring site at a particular time in the past. We characterized these exceedances or violations as occurring in the “past” because the process of determining whether an actual exceedance or violation occurred involves reviewing the ambient air monitoring data collected at monitoring sites over some historical timeframe (*e.g.*, the data have already been collected at the monitors, verified for quality assurance purposes, submitted to AQS, and used in various regulatory calculations). In short, the collected monitoring data provide evidence that an exceedance or violation actually happened. This scenario is different than predicted future NAAQS violations. The proposal explained that predictions of future NAAQS violation(s) generally involve reviewing the historical ambient concentration data that are the evident focus of CAA section 319(b), estimating expected future emissions, and then using both of these data sets as inputs to an air quality modeling tool or other analytical approach that extrapolates these data to predict a future outcome. While science supports, and the EPA relies on, predictions of future NAAQS violations in several parts of the

²⁶ See Question 14a in the *Interim Exceptional Events Rule Frequently Asked Questions*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/eer_qa_doc_5-10-13_r3.pdf.

clean air program, such as in the EPA's approval of attainment demonstrations in SIPs, in PSD air permitting programs and in actions to reclassify a moderate PM₁₀ or PM_{2.5} nonattainment area to serious,²⁷ the fact that these predicted future values rely only in part on historical monitoring data implies that a different standard for data exclusion may be appropriate.

For these reasons, the EPA proposed requiring that the five types of determinations that involve data exclusion associated with "past" exceedances or violations must follow the provisions in the Exceptional Events Rule. The EPA also indicated our intent to develop a supplementary guidance document, *Draft Guidance for Excluding Some Ambient Pollutant Concentration Data from Certain Calculations and Analyses for Purposes Other than Retrospective Determinations of Attainment of the NAAQS*, to describe the appropriate additional pathways for data exclusion for some "predicted future" monitoring data applications (*e.g.*, predicting future attainment that is the basis for approval of an attainment demonstration in the SIP for a nonattainment area, preparing required air quality analyses in an application for a PSD permit or preparing required air quality analysis for the purposes of transportation conformity).

2. Final Rule

After considering the public comments we received, as explained more fully in the following paragraphs, we are finalizing language that applies the provisions in the Exceptional Events Rule to the treatment of data showing exceedances or violations of any NAAQS for purposes of the following types of regulatory determinations by the Administrator.

- An action to designate or redesignate an area as attainment, unclassifiable/attainment, nonattainment or unclassifiable for a particular NAAQS. Such

²⁷ Projection of future NAAQS exceedances or violations do not necessarily play a role in reclassification of an ozone nonattainment area to a higher classification level.

designations rely on a violation at a monitoring site in or near the area being designated.

- The assignment or re-assignment of a classification category (marginal, moderate, serious, etc.) to a nonattainment area to the extent this is based on a comparison of its “design value” to the established framework for such classifications.
- A determination regarding whether a nonattainment area has attained a NAAQS by its CAA deadline. This type of determination includes “clean data determinations.”
- A determination that an area has data for the specific NAAQS that qualify the area for an attainment date extension under the CAA provisions for the applicable pollutant.
- A finding of SIP inadequacy leading to a SIP call to the extent the finding hinges on a determination that the area is violating a NAAQS.
- Other actions on a case-by-case basis if determined by the EPA to have regulatory significance based on discussions between the air agency and the EPA Regional office during the Initial Notification of Potential Exceptional Event process.

After considering comments from multiple state and local air agencies, regional planning organizations and industrial commenters that requested an option for using the Exceptional Events Rule for other regulatory determinations, we have added the sixth bullet in the preamble and in the regulatory text to acknowledge that it may be appropriate to use the provisions in the Exceptional Events Rule to exclude data for regulatory determinations not specifically articulated in the first five bullets. We expect that air agencies and the appropriate EPA Regional

offices will discuss these case-by-case scenarios as part of the Initial Notification of Potential Exceptional Event process, described in more detail in Section IV.G.5 of this preamble.

Upon further review of the identified determinations by the Administrator, we also realized that the fourth bullet, formerly “A determination that an area has had only one exceedance in the year prior to its deadline and thus qualifies for a 1-year attainment date extension, if applicable” applies to attainment date extensions only for PM₁₀ as indicated in CAA section 188(d)(2) because “only one exceedance” is specific to PM₁₀. Attainment date extensions for other NAAQS have other CAA conditions. Our intent was that this determination would apply to attainment date extensions for all NAAQS and these NAAQS have CAA conditions other than “only one exceedance.” As a result, we have revised the language as follows to better convey this concept: “A determination that an area has data for the specific NAAQS, which qualify the area for an attainment date extension under the CAA provisions for the applicable pollutant.” Using this approach, a state would be required to demonstrate that a given area had data with respect to the statistical form of that particular standard in the calendar year prior to the applicable attainment date for the area (*i.e.*, for the 1997 24-hour PM₁₀ NAAQS, no more than one exceedance of the 24-hour NAAQS and the annual mean concentration of PM₁₀ in the area for such year is less than or equal to the standard level). Revising this language also accounts for potential future revisions to the form and level of the NAAQS, data handling provisions and regulatory changes to state implementation plan requirements.

As we indicated in the proposal, we still intend to develop a supplementary guidance document, *Draft Guidance for Excluding Some Ambient Pollutant Concentration Data from Certain Calculations and Analyses for Purposes Other than Retrospective Determinations of Attainment of the NAAQS*, which will describe the appropriate additional pathways for data

exclusion for some “predicted future” monitoring data applications. We have delayed the release of this guidance, however, to allow us to incorporate the content of the final Exceptional Events Rule revisions. We intend to post the draft guidance and instructions for providing public comment on the exceptional events Web site at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events> shortly after finalizing these rule revisions. As we noted in the proposal, we intend this guidance to do the following:

- Clarify that data excluded under the procedural and substantive provisions of the Exceptional Events Rule will also be excluded from (i) design value estimates and AQS user reports (unless the AQS user specifically indicates that they should be included), (ii) selecting appropriate background concentrations for PSD air quality analyses and transportation conformity hot spot analyses, and (iii) selecting appropriate ambient data for projecting future year concentrations as part of a modeled attainment demonstration
- Identify potential pathways for data exclusion for determinations based on “predicted” future NAAQS exceedances or violations (*e.g.*, PSD, transportation conformity).
- Identify the scenarios in which the EPA would *not* exclude data, such as when setting priority classifications for emergency plans under 40 CFR 51.150. The EPA believes that implementing the CAA principle at section 319(b)(3)(A) that “protection of public health is the highest priority” may necessitate that an air agency address in its emergency plan the appropriate planned response for any elevated concentration known to be possible because it has already been observed even if that elevated concentration is associated with an exceptional event.

3. Comments and Responses

While the majority of commenters agreed with the EPA's proposal that the provisions in the Exceptional Events Rule apply to the enumerated five actions, many of these same commenters urged the EPA *not* to limit the scope of the Exceptional Events Rule to the five actions that we identified in the proposal as comprising "determinations by the Administrator with respect to exceedances or violations of national ambient air quality standards." Commenter suggestions ranged from adding a sixth element to capture other case-by-case actions deemed to be of regulatory significance to specifically listing other potential actions (that is, they suggested adding the following to list of specifically covered actions: design value estimates, PSD background determinations, transportation hot spot analyses, future year projections for modeled attainment determinations, clean data determinations (which are included within the third bullet identifying the types of regulatory determinations by the Administrator included within the scope of the Exceptional Events Rule), other actions that rely on design values, monitoring network plans, etc.). The EPA agrees that the list of actions identified in the regulatory text should allow for a case-by-case determination in certain circumstances (*e.g.*, such as when an event is determined during the Initial Notification of Potential Exceptional Events process to have regulatory significance for an action not otherwise identified in the regulatory text) and has added this language to the final regulatory text. The EPA believes that this language could include any of the specific actions identified by other commenters. However, as we noted in the proposal, the CAA does not clearly apply the statutory criteria of section 319(b) to all of the other actions identified by the commenters. Therefore, under certain circumstances, we believe that it may be appropriate to exclude data for some of the other specific actions. Hence, we are

not identifying these actions in the regulatory text. Rather, we intend to address them in the additional guidance previously mentioned and discussed further in the following paragraphs.

As indicated, the majority of commenters agreed with the EPA's approach to define those actions that constitute "determinations by the Administrator." A few other commenters, however, indicated that the EPA cannot narrow the scope of the Exceptional Events Rule nor agree to exclude event-affected data from other types of regulatory determinations using another mechanism without first undertaking notice-and-comment rulemaking. The EPA disagrees with this comment. First, neither the CAA language at section 319(b)(3)(B)(iv), which requires regulations allowing a state to petition the Administrator to exclude air quality monitoring data that is directly due to exceptional events from use in *determinations by the Administrator with respect to exceedances or violations of the national ambient air quality standards*, nor the implementing language in the 2007 Exceptional Events Rule at 40 CFR 50.14(a)(1), which allows air agencies to request exclusions for data showing exceedances or violations of the NAAQS that are directly due to an exceptional event from use in determinations, identify the scope of the word "determinations." Second, identifying the Exceptional Events Rule as the only mechanism by which data may be excluded from regulatory actions may result in unintended consequences. As we have noted previously, an event may make a past air concentration significantly higher than it would have been in the absence of the event contribution. If the event-influenced data do not result in an exceedance or violation, they are not eligible for exclusion under the Exceptional Events Rule. CAA section 319(b) is ambiguous with respect to how to treat an exceptional event that contributed to a past air concentration being higher than it would have been without the event, but the air concentration did not result in an exceedance or violation. The EPA's decision to not apply the Exceptional Events Rule to data that does not

exceed or violate a NAAQS is consistent with how the rule has been applied and interpreted and is not inconsistent with CAA section 319(b). However, we acknowledge that retaining the event-influenced data could have regulatory implications that seem contrary to the purpose of CAA section 319(b). For example, retaining such data in the calculation of background concentrations used in air quality analysis for a PSD permit may suggest that there will be a NAAQS violation after construction of a new source and thus could prevent the permitting authority from issuing the permit.²⁸

As previously noted, we intend our *Draft Guidance for Excluding Some Ambient Pollutant Concentration Data from Certain Calculations and Analyses for Purposes Other than Retrospective Determinations of Attainment of the NAAQS* to describe the appropriate additional pathways for data exclusion for some “predicted future” monitoring data applications. Multiple commenters expressed interest in this guidance and called for its quick release. The EPA recognizes that this guidance is an important supplement to the revisions to the Exceptional Events Rule that we are promulgating and we will work towards the quick release of this document.

Throughout this preamble and in our proposal, we use the term “weight of evidence” to describe the process by which we evaluate individual exceptional events demonstrations and air agency requests for data exclusion. Several commenters asked for additional clarification regarding this terminology, either in preamble or in regulatory text. Several other commenters asked that we use the “more commonly understood” terminology of “preponderance of the

²⁸ If a similar event were to occur after completion of construction, the event-affected data could be excluded and thus there would be no “official” violation.

evidence.” Another commenter objects to the use of a weight of evidence approach noting that it could lead to incorrectly granted requests for data exclusion.

While we are not adding language to the regulatory text, we are clarifying in this preamble to the final rule that in applying a “weight of evidence” approach to reviewing individual exceptional events demonstrations, the EPA believes it is appropriate to consider all relevant evidence and qualitatively “weigh” this evidence based on its relevance to the Exceptional Events Rule criterion being addressed, the degree of certainty, its persuasiveness, and other considerations appropriate to the individual pollutant and the nature and type of event. Courts have found that it is reasonable for the EPA to use a “weight of evidence” analysis when implementing the CAA. *See, e.g., Env'tl. Def. v. EPA*, 369 F.3d 193 (2d Cir. 2004) (upholding the EPA’s approval of a state’s attainment demonstration using photochemical grid modeling and a weight of evidence analysis) and *BCCA Appeal Group v. EPA*, 355 F.3d 817 (5th Cir. 2003) (finding that the EPA's conclusion that the weight of evidence approach to approving attainment demonstrations was consistent with the CAA, reasonable and entitled to deference). In this context, “weight” refers to the relevance of the evidence to the determination and its technical merit, and not to the amount of documentation. The language “weight of evidence” is consistent with this approach and consistent with the terminology used in other EPA regulatory actions. “Preponderance of the evidence” conveys many of the same concepts as “weight of evidence,” but because it is a legal term of art, we are not using that term as part of this rulemaking action. The weight of evidence approach is an appropriate and reasonable approach, which has been used historically and successfully under key CAA programs. The commenter did not present any information showing that this approach is more likely to yield “incorrect” decisions than any other evidentiary approach that might be applicable to exceptional events demonstrations.

D. Definition and Scope of a Natural Event

1. Summary of Proposal

In the 2007 Exceptional Events Rule, the EPA defined a natural event as an event in which human activity plays little or no direct causal role (*see* 72 FR 13580). In our 2015 action, the EPA proposed to revise this definition to include the concept of an event and its resulting emissions and to acknowledge that natural events can recur. The EPA also proposed to include language in the regulatory definition to clarify that anthropogenic emission sources that contribute to the event emissions (and subsequent exceedance or violation) that are reasonably controlled do not play a “direct” role in causing emissions. The proposal elaborated on the “direct causal” concept by repeating language that first appeared in the preamble to the 2007 Exceptional Events Rule but not in rule text.

In the 2007 rule preamble and the November 2015 proposal, the EPA explained that we generally consider human activity to have played little or no *direct* role in causing an event-related exceedance or violation if anthropogenic emission sources that contribute to the exceedance are reasonably controlled at the time of the event (*see* 72 FR 13563-4 and 80 FR 72844). This is the case regardless of the magnitude of emissions generated by these reasonably controlled anthropogenic sources and regardless of the relative contribution of these emissions and emissions arising from natural sources in which human activity has no role.²⁹ Thus, the event could be considered a natural event by applying the reasonable interpretation that the

²⁹ For example, if an area affected by a high wind dust event has adequate rules or ordinances for sources of windblown dust (*e.g.*, rules that establish restrictions for operating vehicles on unpaved property, rules that control windblown dust emissions associated with lands disturbed by construction, earthwork and land development) and the air agency can provide evidence of implementation and enforcement, then the EPA would generally consider human activity to have played little or no direct causal role in causing the monitored exceedance or violation.

anthropogenic source had “little” direct causal role. To further illustrate this concept, as we have noted previously, the EPA considers wildfires to be natural events even though some accidental human actions initiate some wildfires and, to some degree, prior land management practices can influence the frequency and scale of wildfires. The EPA believes the interpretation that wildfires are natural events best implements the Congressional intent and is a more appropriate approach than expecting air agencies to determine the initial cause of each wildfire of interest and classifying it as natural or anthropogenic based on that cause. In addition, landowners and managers and government public safety agencies are strongly motivated to reduce the frequency and severity of human-caused wildfires. Our proposal further explained that if anthropogenic emission sources that contribute to the event emissions can be reasonably controllable but reasonable controls were not implemented at the time of the event, then the event would *not* be considered a natural event.

2. Final Rule

After consideration of the public comments and as supported by many commenters, we are finalizing the following definition: “*natural event* means an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. For purposes of the definition of a natural event, anthropogenic sources that are reasonably controlled shall be considered to not play a direct role in causing emissions.” In the final regulatory definition that we are promulgating, we are adding the language “at the same location” to more clearly indicate that natural events can recur in the same area or at the same location and still be considered as exceptional events. The language we are adding in the definition contrasts the recurrence frequency of natural events with human activities that must be “unlikely to recur at a particular location” to be considered to be an exceptional event (*see* CAA

section 319(b)(1)(A)(iii)). Although several commenters disagreed with our approach, and stated that a natural event must have no human activity component at all, we are retaining in the regulatory definition the concept that we consider reasonably controlled anthropogenic sources to not play a direct role in causing emissions. We are, however, adding the language “[f]or purposes of the definition of a natural event” prior to the language “anthropogenic sources that are reasonably controlled shall be considered to not play a direct role in causing emissions” to clarify that the “direct causal” language applies to reasonably controlled anthropogenic sources when considering whether the event is natural. As we have previously stated, we believe that if reasonable controls were implemented on contributing anthropogenic sources at the time of the event and if, despite these efforts and controls, an exceedance occurred, then we would consider the human activity to have played little or no direct causal role in causing the event-related exceedance. Rather, in those cases in which the anthropogenic source has “little” direct causal role, we would consider the high wind and the emissions arising from the contributing natural sources (in which human activity has no role) to cause the exceedance or violation. Additionally, the event would *not* be natural if all of the event-related emissions originated from anthropogenic sources or if anthropogenic emission sources that contributed to the event-related emissions could have been reasonably controllable but reasonable controls were not implemented at the time of the event.³⁰ We discuss the concept of reasonable control in more detail in Section IV.E.2 of this preamble.

³⁰ As we clarify in the final rule discussion in Section IV.F.2.a of this preamble, when considering prevention/control for purposes of exceptional event categorization, a prescribed fire effectively becomes like a wildfire when, for example, the prescribed fire escapes secure containment due to unforeseen circumstances (*e.g.*, a sudden shift in prevailing winds). In these instances, the burn manager would no longer control the path of the fire. Thus, the fact that the

3. Comments and Responses

Commenters providing feedback on the natural events section of the proposal generally focused on one of the following concepts: the language in the proposed revised definition of natural event, those event types considered to be natural events and the concept of reasonable controls as it relates to contributing anthropogenic emissions. We address in the explanation of the final rule language in Section IV.D.2 of this preamble those comments related to the definition of natural event. We address the types of natural events in this section and we discuss reasonable controls in Section IV.E.2 of this preamble.

Several commenters asked that we clarify those types of events that could be considered natural events eligible for data exclusion under the Exceptional Events Rule. Commenters specifically asked for clarity regarding earthquakes, lightning and biological emissions. Through our experience implementing the Exceptional Events Rule, we have come to realize that it may be helpful to think of an event in terms of the source of its emissions. If the underlying source is natural and the generated emissions influence a regulatory monitor, then the ensuing event (*i.e.*, event and resulting emissions) could be considered a “natural event” under the Exceptional Events Rule. Applying this rationale, as we expressed in the 2007 rule and the November 2015 proposal (*see* 72 FR 13565 and 80 FR 72854-72858), the EPA generally considers wildfires, stratospheric ozone intrusions, volcanic and seismic (*e.g.*, earthquake) activities, natural disasters (*e.g.*, hurricanes and tornados) and windblown dust from natural, undisturbed landscapes to be natural events. Natural events, including, but not limited to, those previously identified, and their resulting emissions could be considered under the provisions of the Exceptional Events Rule.

initial fire was deliberately ignited should not result in the entire burn (*e.g.*, the duration and extent of the burn) needing to follow the rule requirements for prescribed fires on wildland.

Also, as explained in this section, events that include emissions from both natural and anthropogenic sources, such as high wind dust events, can be considered natural events only if reasonable controls have been applied to the contributing anthropogenic sources. Lightning storms occurring close to a regulatory monitor, such that the particular storm notably affects the monitor close in time to the storm might qualify as natural events that could also be exceptional events. However, the ongoing and delayed aggregate impact of many lightning storms that are not proximate to the monitor is not a deviation from normal or expected conditions and thus would not be an exceptional event. Also, routine biological emissions (*e.g.*, including, but not limited to, emissions from vegetation, microbes and/or animals) are not deviations from normal or expected conditions. Thus despite being natural, they are not “events” and would not qualify as exceptional events. As is true for all exceptional events determinations, the EPA will consider these events, and other event types not identified here, on a case-by-case basis.

E. Technical Criteria for the Exclusion of Data Affected by Events

As described in Section IV.B of this preamble, the EPA is finalizing provisions to return to the core statutory elements and implicit concepts of CAA section 319(b): that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation, the event was not reasonably controllable or preventable, and the event was caused by human activity that is unlikely to recur at a particular location or was a natural event. *See, e.g.*, 42 U.S.C. 7619(b)(1). All exceptional events demonstrations, regardless of event type or relevant NAAQS, must address each of these technical criteria. The EPA has posted examples of acceptable demonstrations for various event and pollutant combinations on its Web site at <https://www.epa.gov/air-quality-analysis/exceptional-events-submissions-table>. We will update this Web site as additional

examples become available. This section summarizes the EPA’s proposed revisions, final regulatory language and public comments regarding each of these technical criteria. Section IV.G of this preamble discusses additional process-related components of exceptional events demonstrations.

1. Human Activity Unlikely to Recur at a Particular Location or a Natural Event

Because Section IV.D of this preamble addresses the definition of a natural event and those event types that can be considered natural events under the Exceptional Events Rule, we focus this section of the preamble on the “human activity unlikely to recur at a particular location” portion of the “human activity unlikely to recur at a particular location or a natural event” technical criterion. In the final rule description section in this part of the preamble, we provide example conclusory language that air agencies can use in the portion of their exceptional events demonstration that addresses this criterion. This example language applies to both human activity and natural events.

a. Summary of Proposal

Our proposal stated that according to both the statutory and regulatory definitions, an exceptional event must be “an event caused by human activity that is unlikely to recur at a particular location *or* a natural event” (emphasis added, *see* CAA section 319(b)(1)(A)(iii) and 40 CFR 50.1(j)). As we noted in the discussion of a natural event in Section IV.D of this preamble, we have come to realize that it may be helpful to think of an event in terms of the source of its emissions. If the underlying source is natural and the generated emissions influence a regulatory monitor, then the ensuing event (*i.e.*, event and resulting emissions) could be considered a “natural event” under the Exceptional Events Rule. Under this particular criterion, if the underlying source of emissions is anthropogenic, then the event can only be “exceptional”

if the original source is “unlikely to recur at a particular location.” The proposal noted that neither the CAA nor the 2007 Exceptional Events Rule defined “unlikely to recur” or “at a particular location.” Therefore, the proposal sought to clarify both of these phrases. In addition to proposing a generally applicable approach for “unlikely to recur,” we also proposed specific approaches for wildland fires, notably prescribed fires on wildland (which we discuss in Section IV.F.2 of this preamble), and high wind dust events (which we discuss in Section IV.F.4 of this preamble). The proposal also clarified that under CAA section 319(b) and a provision of the 2007 Exceptional Events Rule that we did not propose to change, air pollution related to source noncompliance is not an exceptional event regardless of its frequency.

We proposed, as guidance, to interpret the unlikely to recur language as follows. If an event type has not previously occurred within a given air quality control region (AQCR)³¹ in the 3 years preceding the submittal of an exceptional events demonstration for an event that has occurred recently, the EPA will consider this recent event to be a “first” event and will generally consider that event type to be unlikely to recur in the same location.³² Similarly, if there was one prior event (for which a demonstration may or may not have been submitted) within the 3 years preceding the submittal of an exceptional events demonstration for the recent event, that event type would also generally be considered unlikely to recur in the same location. However, if there have been two prior events of a similar type within a 3-year period in an AQCR, that would generally indicate the third event, for which the demonstration is being prepared (or would be

³¹ 40 CFR part 81, subpart B, Designation of Air Quality Control Regions, defines Air Quality Control Regions.

³² While we proposed to define event recurrence as occurring in the 3 years preceding the submittal of an exceptional events demonstration, the proposal language should have read in the 3 years preceding the event that is the subject of an exceptional events demonstration. We clarify this 3-year timeframe in the final rule section.

prepared), does not satisfy the “human activity that is unlikely to recur at a particular location” criterion and, thus, would not qualify as an exceptional event. The terms “one prior event” and “two prior events” refer to events that affect the same AQCR, even if they have not affected the same monitor.³³ This proposed guidance is consistent with the approach taken to recurrence in our Interim High Winds Guidance document in which we identified non-recurring events as being less than one event per year in a given area.³⁴ In the Interim High Winds Guidance, we did not define “area” other than to differentiate areas by attainment status or jurisdiction (*i.e.*, intrastate versus interstate or international). The EPA solicited comment on using an AQCR to define the bounds for an area subject to event recurrence and on whether to incorporate into rule text the benchmark of three events in 3 years.

b. Final Rule

As a result of the feedback from numerous commenters, we are providing clarifications to the “unlikely to recur at a particular location” language as guidance in this preamble and not regulatory text. We note here, as guidance, the benchmark of three events in 3 years to define recurrence. We measure the 3-year period backwards from the date of the most recent event (*e.g.*, for an event occurring on May 1, 2016, the 3-year period would be May 1, 2013, through May 1, 2016). As described previously, if there have been two prior events of a similar type (*i.e.*, a similar event type generating emissions of the same pollutant whether flagged or the subject of

³³ The EPA will consider previously flagged exceedances within AQS with their associated descriptions to be “events” regardless of whether the EPA has received or acted on event demonstrations. The EPA also notes that a single event could influence concentrations on multiple days.

³⁴ See footnote 27 in table 2 of *Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/excepevents_highwinds_guide_130510.pdf.

a demonstration) within a 3-year period in “a particular location,” the third event, for which the demonstration is being prepared (or would be prepared), would generally not satisfy the “human activity that is unlikely to recur at a particular location” criterion and, thus, would not qualify as an exceptional event. Although under this approach, the third event essentially confirms that the first two events are “routine,” an air agency would not likely recognize the routine nature of the first two events until the third occurrence. Also as noted in our proposal, the EPA will consider previously flagged exceedances within AQS with their associated descriptions to be “events” regardless of whether the affected air agency has submitted or the EPA has acted on these “recurring” event demonstrations. We also note in this final action that the benchmark of three events in 3 years generally applies regardless of an area’s designation status with respect to the NAAQS that is the focus of the event demonstration. The EPA could grant exceptions to the benchmark of three events in 3 years benchmark on a case-by-case basis. Several commenters supported, and no commenters opposed, this generally applicable approach.

With regard to the frequency, several commenters asked the EPA to clarify how the concept of recurrence applies to a single event spanning multiple days. First, the EPA notes that for purposes of exceptional events eligibility, the concept of recurrence only applies to “human activity unlikely to recur at a particular location” and not to natural events. Natural events can recur. That said, a single event, natural or caused by human activity, can span multiple days and result in an air agency flagging multiple monitor-day values in AQS (*i.e.*, multiple exceedances of a given NAAQS at a single monitor in a single day or multiple NAAQS exceedances at multiple monitors on multiple days). The EPA considers a single discrete event to be one occurrence even if it extends over more than one day. Applying our benchmark of three events in 3 years, for an area experiencing three authorized and deliberately set structural fires in 2 years,

the EPA would not consider a third such structural fire in the third year to be an exceptional event.³⁵ Because prescribed fires on wildland eligible for exceptional events consideration involve igniting and managing the fire according to the provisions set forth in either a Smoke Management Program or using basic smoke management practices, we discuss the unique circumstances associated with the recurrence of prescribed fires on wildland in IV.F.2.

While we proposed, as guidance, to use an AQCR to define the bounds for an area subject to recurrence, in light of the comments received and issues raised therein, we agree that using AQCRs as the only way in which to define the bounds for an area subject to recurrence is not appropriate. Commenters identified the following reasons why an AQCR may not be suitable: AQCRs can be antiquated and inconsistent with current jurisdictional boundaries; AQCRs may be too large (particularly in some areas of the West) for effective analysis of event recurrence; AQCRs could be subdivided by terrain (*e.g.*, mountains or valleys) that could affect the transport and/or chemical interactions of pollutants; pollutant sources and monitors may not fall within the bounds of the same AQCR. Rather than prescribe an approach to define “a particular location,” commenters suggested that the EPA Regional offices and the affected air agencies could agree to the bounds of “a particular location” as part of regular, on-going conversations and/or as part of the Initial Notification of Potential Exceptional Event process. Commenters suggested that while an AQCR might appropriately define “a particular location” in some areas of the country, other areas may determine one of the following to be more suitable:

³⁵ A deliberately set structural fire that has been authorized by a responsible government agency is clearly not a natural event. We are not offering guidance at this time on whether accidentally set structural fires or arson-set structural fires should be considered natural or anthropogenic events. We do note, however, that wildfires on wildland initiated by accident or arson are considered natural events, and on a case-by-case basis this treatment for wildfires may bear on the appropriate treatment of accidental and arson-set structural fires.

counties or other political boundaries, core based statistical areas (CBSAs), nonattainment or unclassifiable area boundaries (if applicable), a density metric (*i.e.*, number of events per thousand square miles calculated using the radius around the subject monitor), and/or distance to the monitor as indicated by a defined radius from the subject monitor. We agree that some of the commenters' suggestions may be appropriate in particular cases and we leave it to the EPA Regional offices and to the affected air agencies to consult on how to characterize "a particular location."

As stated previously, all exceptional events demonstrations, regardless of event type or relevant NAAQS, must address each of the three technical criteria. We proposed conclusory language associated with the "human activity that is unlikely to recur at a particular location or a natural event" criterion and repeat it here as part of the preamble to the final Exceptional Events Rule revisions. When addressing this criterion as part of an exceptional events demonstration, the EPA recommends that the submitting air agency document and discuss the following in a distinct "human activity/natural event" section of the demonstration: the type/source of event (*e.g.*, a particular type of chemical spill or other industrial accident, fire in a particular type of structure, lightning-ignited wildfire, etc.), clearly identify whether the event is natural or was a human activity that is unlikely to recur at a particular location, the resulting emissions (*e.g.*, characterized in terms of the pollutant and magnitude, if applicable/available), and the documented frequency of the event in the prior 3 years (or other appropriate timeframe as agreed with the reviewing EPA Regional office).³⁶ The air agency should then affirmatively state that in

³⁶ The frequency of event recurrence is important for both natural and anthropogenic events. For anthropogenic events, frequency can determine whether the event satisfies the "human activity unlikely to recur at a particular location or a natural event" criterion. For a natural event, the frequency can determine whether a mitigation plan is necessary (*see* Section V of this preamble).

characterizing the event, it has satisfied the “human activity unlikely to recur at a particular location or a natural event” criterion.

2. Not Reasonably Controllable or Preventable

As noted in the proposal, because CAA section 319(b) does not restrict the applicability of the not reasonably controllable or preventable criterion to certain types of events, this CAA criterion, and the implementing Exceptional Events Rule language, applies to both events caused by human activity and to natural events. This section discusses the criterion in general terms. We discuss the criterion’s specific applicability to fire events on wildland in Section IV.F.2 of this preamble and to high wind dust events in Section IV.F.4 of this preamble.

a. Summary of Proposal

The EPA proposed to codify in regulatory language key aspects of the “not reasonably controllable or preventable” criterion to reduce uncertainty for air agencies and other parties. Specifically, we proposed and solicited comment on the following revisions to the Exceptional Events Rule to indicate that:

- The not reasonably controllable or preventable criterion has two prongs, prevention and control. An air agency must demonstrate that an event was both not reasonably preventable and not reasonably controllable.
- An event is not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event.
- An event is not reasonably controllable if reasonable measures to control the impact of the event on air quality were applied at the time of the event.
- The reasonableness of measures is case-specific and is to be evaluated in light of information available at the time of the event.

- Air agencies do not need to provide case-specific justification to support the “not reasonably controllable or preventable” criterion for remote, large-scale, high-energy and/or sudden high wind dust events, such as “haboobs.”
- Provided the air agency is not under an obligation to revise the SIP, the EPA would consider (*i.e.*, give deference to) enforceable control measures implemented in accordance with a state implementation plan, approved by the EPA within 5 years of the date of a demonstration submittal, that address the event-related pollutant and all sources necessary to fulfill the requirements of the CAA for the SIP to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to event-related emissions.
- Air agencies do not need to provide case-specific justification to support the “not reasonably controllable or preventable” criterion for emissions-generating activity that occurs outside of the boundaries of the state (or tribal lands) within which the concentration at issue was monitored.

In addition to the identified revisions, the proposal also discussed and solicited feedback on the role of an EPA-approved SIP in nonattainment, maintenance, unclassifiable and attainment areas; prior communications regarding expectations for reasonable controls; prospective agreements regarding assessments of reasonable controls; and components of a not reasonably controllable or preventable showing within a demonstration. We summarize our proposed positions on these topics in the following paragraphs.

The proposal stated that while we would defer to the enforceable control measures in attainment plan SIPs applying to maintenance and nonattainment areas, we would not give this same deference to infrastructure SIPs developed for attainment, unclassifiable/attainment and

unclassifiable areas. We differentiated attainment plan SIPs and infrastructure SIPs by the fact that attainment plan SIPs must include an attainment demonstration and reasonably available control measures (RACM), best available control measures (BACM),³⁷ and other requirements,³⁸ which together constitute an assessment of reasonable controls. Infrastructure SIPs typically rely on maintenance and attainment SIPs to demonstrate compliance with the key infrastructure elements. Therefore, the EPA proposed that the underlying SIPs, which would themselves include the control measures, be the relevant SIPs for exceptional events demonstrations.

The proposal also recognized that regulations and an area's planning status are often evolving and changing, that these changes can span several years and involve multiple rounds of formal and informal communications between the affected air agency and the EPA, and that these changes could ultimately result in an air agency's adoption of new control measures, which, for exceptional events purposes, could constitute "reasonable" controls. Acknowledging that these conversations could inform what the air agency knew at the time of the event and thus could influence a case-specific assessment of the not reasonably controllable or preventable criterion, the EPA solicited comment on methods to definitively identify the status of communications and planning efforts (*e.g.*, formal correspondence or other documentation, timelines for responding) and whether this approach would be more appropriately addressed through rule language.

First appearing in the Interim High Winds Guidance, the proposal repeated the suggestion that an air agency could prospectively assess and determine that the controls in place for a particular type of event, or a planned enhancement of those controls, are sufficient to meet the

³⁷ BACM applies to attainment plans for serious PM₁₀ or PM_{2.5} areas.

³⁸ Marginal ozone nonattainment areas are exceptions because they are not required to submit attainment demonstrations.

not reasonably controllable or preventable criterion, and then obtain the EPA's review and concurrence of this assessment prior to more events of that type occurring. The proposal expressed the EPA's belief that this prospective approach would reduce disagreements that might otherwise occur over later retrospective assessments.

The proposal also solicited comment on recommending as either guidance or rule the following components that an air agency should include within the not reasonably controllable or preventable showing in a demonstration: (1) identify the natural and anthropogenic sources of emissions causing and contributing to the event emissions, including the contribution from local sources, (2) identify the relevant SIP or other enforceable control measures in place for these sources and the implementation status of these controls, and (3) provide evidence of effective implementation and enforcement of reasonable controls, if applicable.³⁹ In identifying natural and anthropogenic sources, we clarified that the air agency should assess both potentially contributing local/in-state and upwind sources.

b. Final Rule

After considering the public comments we received, we are finalizing the following not reasonably controllable or preventable elements, all of which contain associated regulatory language.

³⁹ The EPA generally expects evidence that the controls determined to be reasonable, if any, were effectively implemented and appropriately enforced. This assessment of local sources should include a review and description of any known nearby facility upsets or malfunctions that could have resulted in emissions of the relevant pollutant(s) that influenced the monitored measurements on the day(s) of the claimed events. In the case of a high wind dust event, for example, for the identified potentially contributing local sources, the analysis should explain how significant dust emissions occurred despite having reasonable controls in place (*e.g.*, that controls were overwhelmed by high wind), if appropriate.

- The not reasonably controllable or preventable criterion has two prongs, prevention and control. An air agency must demonstrate that an event was both not reasonably preventable and not reasonably controllable.
- An event is not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event.
- An event is not reasonably controllable if reasonable measures to control the impact of the event on air quality were applied at the time of the event.
- The reasonableness of measures is case-specific and is to be evaluated in light of information available as of the date of the event.
- Air agencies do not need to provide case-specific justification to support the “not reasonably controllable or preventable” criterion for emissions-generating activity that occurs outside of the boundaries of the state (or tribal lands) within which the concentration at issue was monitored.⁴⁰

In addition, as a result of commenter feedback as explained more fully in subsequent paragraphs, we are promulgating in regulatory text the following revised versions of elements that we proposed for the not reasonably controllable or preventable criterion:

- Provided the appropriate federal, state or tribal air agency is not under an obligation to revise the SIP or FIP or TIP for an attainment or maintenance area for the event-related pollutant, the EPA would consider (*i.e.*, give deference to)

⁴⁰ Under the CAA, the EPA generally considers a state (not including areas of Indian country) to be a single responsible actor. Accordingly, neither the EPA nor the 2007 Exceptional Events Rule provides special considerations for *intrastate* scenarios when an event in one county affects air quality in another county in the same state, assuming that the event occurs on land subject to state authority (versus tribal government authority). The EPA expects controls appropriate for the designation status of the county (or portion of the county) in which the emissions originate.

enforceable control measures implemented in accordance with such a SIP or FIP or TIP, approved by the EPA within 5 years of the date of the event, that address the event-related pollutant and all sources necessary to fulfill the requirements of the CAA for the SIP or FIP or TIP to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to the monitored exceedance or violation.⁴¹ If the appropriate air agency is under an obligation to revise its implementation plan with respect to the specific enforceable control measures applicable to the exceptional events demonstration due to a SIP call pursuant to CAA section 110(k)(5), the EPA will evaluate on a case-by-case basis the control measures in place to determine whether emissions were reasonably controlled at the time of the event.

- When addressing the “not reasonably controllable or preventable” criterion within an exceptional events demonstration, air agencies should: (1) identify the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources,⁴² (2)

⁴¹ Under CAA section 110(c), the EPA is required to issue and enforce a federal implementation plan if a state fails to develop, adopt and implement an adequate SIP. States may also choose to adopt the federal plan as an alternative to developing their own plan. If a federal plan is implemented in a state, the state may still, at a later date submit a plan to replace the federal plan either in whole or in part. States may take over the administrative and enforcement aspects of a federal plan rather than leaving it to the EPA. Similarly, under the TAR at 40 CFR 49, tribes can develop their own plans (*i.e.*, tribal implementation plans) to implement the CAA provisions. Rather than develop their own TIPs, tribes can request that the EPA develop a FIP.

⁴² In specifying “local” sources, we mean those sources that are both within the jurisdiction of the state or tribe and that are in the vicinity of or are located upwind of the monitor with the recorded exceedance or violation. “Local” sources could include, but are not limited to, large point sources (*e.g.*, large industrial sources, electric power plants, airports, etc), nonpoint sources (*e.g.*, residential heating, asphalt paving, etc.), mobile sources (*e.g.*, both on- and off-road

identify the relevant SIP, FIP or TIP or other enforceable control measures in place for these sources and the implementation status of these controls, and (3) provide evidence of effective implementation and enforcement of reasonable controls, if applicable.⁴³

- Air agencies do not need to provide case-specific justification to support the “not reasonably controllable or preventable” criterion for large-scale and high-energy high wind dust events, such as “haboobs.” (We discuss the characteristics of these events in Section IV.F.4 of this preamble.)

In addition, we repeat in this final action our suggestion that an air agency can prospectively assess and determine that the controls in place for a particular type of event, or a planned enhancement of those controls, are sufficient to meet the not reasonably controllable or preventable criterion, and then obtain the EPA’s review and concurrence of this assessment prior to the occurrence of similar events (*i.e.*, a similar event type generating emissions of the same pollutant). This prospective approach would reduce disagreements that might otherwise occur over later retrospective assessments. Although air agencies have not historically pursued this option, it is our intent going forward to work with any air agency expressing an interest in

vehicles, construction equipment, trains, and vessels), natural sources or biogenic sources (*e.g.*, off-gassing from soil, animals and vegetation).

⁴³ The EPA recognizes that air agencies have various methods of ensuring source compliance and various methods of permitting and enforcement. We do not expect nor would *all* agencies necessarily need to have enforcement records for *all* events. However, agencies should make a general showing that they are enforcing controls to a reasonable degree (not necessarily on the particular day of the event). If an air agency identifies several categories of anthropogenic sources as significant or likely contributors to an event, the air agency should also describe in the demonstration the means used to determine compliance with reasonable control requirements for each category.

pursuing this approach. Air agencies interested in this process should contact their reviewing EPA Regional office.

c. Comments and Responses

While some commenters supported the EPA's stated position in the proposal that the not reasonably controllable or preventable criterion consists of two prongs (*i.e.*, control and prevention), other commenters asserted that the statutory criterion and the implementing language in the 2007 rule is "not reasonably controllable *or* preventable" (emphasis added). Commenters disagreeing with the EPA's position claim that the EPA's interpretation is contrary to the CAA and that the EPA lacks authority to contravene the precise statutory language in the implementing regulatory language by interpreting the CAA to mean that an exceptional event must be both not reasonably controllable *and* not reasonably preventable.

As previously noted, we maintain that the criterion consists of two factors: prevention *and* control and that to qualify as an exceptional event, the event must satisfy both factors. CAA section 319(b)(1)(A)(ii) is ambiguous regarding whether "not reasonably controllable or preventable" requires a demonstration to show both criteria, or one or the other. In adopting our interpretation, we have applied a valid rule of inference known as De Morgan's law, which recognizes that the negation of a disjunction is the conjunction of the negations. Stated simply, "not (A or B)" is the same as "(not A) and (not B)." *See, e.g., State v. Nelson*, 842 N.W.2d 433, at 440-41 (Minn. 2014) (finding it reasonable to apply De Morgan's law to statutory interpretation); *Schane v. Int'l Bhd. Of Teamsters*, 760 F.3d 585, 589-92 (7th Cir. 2014) (applying De Morgan's law to address a pension plan dispute, focusing on the context in which the "not...or" phrase was used). Applied to CAA section 319(b)(1)(A)(ii), an exceptional event means an event that is both not reasonably controllable and not reasonably preventable. The

legislative history supports this logical reading of the statutory language. Congress provided the following rationale for promulgating the exceptional events provisions: “Events such as forest fires or volcanic eruptions, should not influence whether a region is meeting its Federal air quality goals.” S. Rep. No. 109-53, at Sec. 1618 (2005) and S. Rep. No. 108-222, at Sec. 1618 (2004). The examples used in the legislative history – forest fires and volcanic eruptions – are *both* not reasonably controllable *and* not reasonably preventable.

This interpretation is also supported by the intent of CAA section 319(b), which identifies the limited circumstances in which it is appropriate to exclude from certain regulatory decisions air monitor data clearly caused by an exceptional event balanced with the CAA’s goal of protecting human health and the environment. The language “not reasonably controllable” clearly implicates controls, as does “preventable,” since an event may be “preventable” by mitigating the conditions under which the event occurs - *i.e.*, by applying controls. Thus, consideration of the circumstances of the event and possible application of controls is appropriate in both contexts, and a separate analysis is required for “not reasonably controllable” and “not reasonably preventable.”

We note that the commenters who disagree with the EPA’s interpretation failed to identify any scenarios or provide any examples of why it is problematic for the EPA to require that an exceptional event must be both not reasonably controllable *and* not reasonably preventable. While some air agencies that have submitted demonstrations have argued that the “or” in this criterion allows them to choose between showing either prevention or control of the event-related emissions, this type of “or” selection is contrary to the emphasis of CAA section 319(b) on the protection of public health and the exclusion of data associated with emissions from “exceptional events.” The CAA as a whole, and section 319(b) in particular, is premised on

the idea that states should undertake reasonable actions to control emissions and protect public health. Exemptions and exceptions apply in addition to, rather than in place of, reasonable controls. The CAA does not allow air agencies to avoid applying reasonable controls to address emissions simply because other factors also contribute to those emissions. For example, for a high wind event, applying “or” might suggest that because the wind is not preventable, the agency has no obligation to address reasonable controls (*e.g.*, the application of water to stockpiles of wood chips) that could reduce emissions in the case of such an event. For prescribed fire, the use of “or” could allow an air agency to argue that a fire is not reasonably preventable because of the safety or ecosystem benefits that would be foregone if the fire were not applied, so the emissions and air quality impacts from the fire do not need to be reasonably controlled through the application of basic smoke management practices. Another example of when applying “or” would be problematic is a situation in which a developer could intentionally set fire to forested land to clear it for development, as that event would be preventable but possibly not controllable; such an event should not be considered an exceptional event. In contrast, elsewhere in the preamble to these final rule revisions we explain that some events may be neither preventable nor their air quality impacts to be controllable to any degree, such as potential increases in SO₂ concentrations associated with volcanic eruptions, and thus would qualify as exceptional events.

These final rule revisions present that what is “reasonable” for purposes of “not reasonably controllable or preventable” should consider the technical knowledge available to the air agency at the time of the event. While this concept was supported by some commenters, others maintain that “controllable” is forward looking rather than backward looking and that air

agencies should anticipate future events and implement controls and measures to account for potential future impacts.

We agree with the commenters that a prospective approach to assessing what might constitute “reasonable controls” could be helpful in some cases, particularly for areas experiencing recurring events. Therefore, we have modified our proposal as it relates to mitigation for areas experiencing historically documented or known seasonal events. We discuss these concepts in Section V of this preamble. We disagree, however, with the commenters’ forward-looking approach as it applies to other situations. As we noted in the proposal, an air agency “caught by surprise” by an event of a given type (or by an unexpected number of such events in a period over which NAAQS compliance is evaluated, typically 3 years) should not be expected to have implemented the same controls prior to an event as an air agency that has been aware that events of a certain type occur with regularity and cause NAAQS exceedances or violations. The EPA anticipates that nonattainment (or maintenance) areas have technical information needed to understand those measures that constitute reasonable control of anthropogenic sources in their jurisdiction for recurring events of the type(s) that cause or contribute to nonattainment (or that did previously). In contrast, the EPA generally does not expect areas identified as attainment, unclassifiable/attainment or unclassifiable for a NAAQS to have the same understanding or to have adopted the same level of event-relevant controls as areas that are nonattainment (or maintenance) for the same NAAQS. Also, if an area has been recently designated to nonattainment but is still developing its SIP and has not yet reached a

deadline to implement controls, the EPA expects the level of controls that is appropriate for that planning stage.⁴⁴

As noted previously, the EPA proposed, and is finalizing in rule language, that an air agency does not need to provide case-specific justification to support the “not reasonably controllable or preventable” criterion for emissions-generating activity that occurs outside the boundaries of the state (or tribal lands) within which the concentration at issue was monitored. While the majority of commenters supported this provision, other commenters noted that it is inconsistent with the plain language of CAA section 319, which requires that an event be not reasonably controllable or preventable and does not distinguish based on the origin of emissions associated with the event.

A review of the legislative history, and the language of section 319, as well as the purpose and intent of the CAA as a whole, reveals that Congress did not likely intend to deny a downwind state or tribe relief in the form of data exclusion within the context of the Exceptional Events Rule for emissions that state or tribe has no authority to control. *See, e.g.*, H.R. Rep. No. 109-203 (2005) and CAA section 319(b)(1). As we expressed in the proposal, it is not reasonable to expect the downwind air agency (*i.e.*, the state or tribe submitting the demonstration) to have required or persuaded the upwind state, tribe, or foreign country to have implemented controls on sources sufficient to limit event-related air concentrations in the downwind state or tribal lands. In fact, Congress explicitly addressed interstate pollution transport in CAA sections

⁴⁴ The CAA provides different timeframes for developing and implementing SIPs depending on the NAAQS and the nonattainment area’s classification (*e.g.*, severity of the nonattainment problem). The EPA recognizes that within the SIP development and implementation process, some measures may be implemented relatively quickly (*e.g.*, transportation conformity, new source review) whereas other programs, such as development or rules for particular source types, can take time and involve state legislative processes.

110(a)(2)(D)(i) and (ii), which we discuss in more detail in Section IV.F.1 of this preamble.

There is no evidence that Congress intended for such efforts to be repeated in the context of exceptional events. We note, however, that we do expect the submitting (downwind) air agencies to assess potential contribution from local/in-state sources within their jurisdiction and submit evidence and statements supporting the other exceptional events criteria (*i.e.*, clear causal relationship and human activity unlikely to recur or a natural event) in their demonstrations for events that originate outside of their jurisdictional bounds.

Regarding the origin of emissions, several commenters asked that the EPA clarify how “outside of jurisdiction” applies to emissions from ocean-going vessels (*e.g.*, container ships and large tankers that are regulated by international treaties) and international natural and anthropogenic emissions. Although the EPA would consider emissions from ocean-going vessels regulated by international treaties as well as other international emissions (regardless of whether they are natural or anthropogenic in origin) to be emissions originating outside of the jurisdiction of the affected air agency and these emissions would therefore satisfy the not reasonably controllable or preventable criterion, these same emissions would only qualify for treatment under the Exceptional Events Rule if they also satisfy the clear causal relationship criterion and the human activity unlikely to recur at a particular location or a natural event criterion. In these scenarios, emissions from ships regulated by international treaty and international emissions from routine anthropogenic activity would not satisfy the human activity unlikely to recur at a particular location criterion because they are both routine and occur frequently in the same area (*e.g.*, the port or coastline). International emissions originating from a natural, event-based sources (*e.g.*, wildfire, volcanic activity) or from human activities unlikely to recur at a particular location (*e.g.*, industrial explosions) are more likely to qualify as exceptional events. As we have

stated multiple times in this preamble, to qualify for data exclusion under the provisions of the Exceptional Events Rule, an event must satisfy all of the technical and administrative requirements under the rule.

The proposed rule revisions contained regulatory language allowing air agencies to defer to the control measures included in an attainment or maintenance SIP, approved by the EPA within 5 years of the date of a demonstration submittal, that addresses the event-related pollutant and contributing sources, to satisfy the requirement for reasonable controls. While the overwhelming majority of commenters, representing state, local, regional planning organizations and industry, supported this presumption, a few commenters disagreed with this provision noting that the EPA should not universally defer to SIP measures, but rather should assess the not reasonably controllable or preventable criterion on a case-by-case basis. Commenters supporting deference asked the EPA to consider the following revisions: (1) measure the sufficiency of SIP requirements from the date of the event rather than the date of demonstration; (2) include reliance on measures in FIPs and/or TIPs in addition to those in SIPs; (3) include reliance on BACMs in air quality permits that are designed to control anthropogenic industrial sources; and (4) expand the reliance to include infrastructure SIPs (with or without Natural Events Action Plans (NEAP) or other mitigation plans).

We individually address these general comments and specific suggestions for revision in the following paragraphs. We maintain, as supported by many commenters and as opposed by a few, that deference to enforceable control measures implemented in accordance with an attainment or maintenance SIP (or FIP or TIP), is appropriate provided the timeframe for deference is limited and provided the SIP addresses the pollutant and the sources potentially contributing emissions to the exceedance or violation that is the subject of the exceptional events

demonstration. SIPs demonstrate that the state has the basic air quality management program components in place to implement a new or revised NAAQS by identifying the emission control requirements that state will rely on to attain/maintain these NAAQS. In developing its SIP according to the provisions of CAA section 110(a), a state must identify and assess those sources of emissions that are contributing to the state's air pollution problem, identify appropriate controls, identify contingency measures, address provisions for demonstrating reasonable further progress, identify permitting requirements, and satisfy other requirements. When a nonattainment area reaches attainment, it may be redesignated to maintenance area status if it has implemented all applicable nonattainment area requirements and obtains the EPA's approval for a maintenance plan for a 10-year period. Thus, in both maintenance and nonattainment areas with approved attainment plan SIPs, the air agency and the EPA, with input from the public, will have considered what controls are necessary and reasonable to provide for attainment, based on information available at the time of plan development and approval. Because the attainment/maintenance SIP development process includes the identification and assessment of those sources of emissions that are contributing to the state's air pollution problem, which could include event-related emissions, it is appropriate to rely on the measures in the SIP as constituting reasonable controls for purposes of exceptional events demonstrations just as it is reasonable to rely on the measures in the SIP as constituting reasonable controls for emissions sources. We do, however, agree with the commenters that deference to the control measures in an attainment or maintenance SIP should not be open-ended. We discuss limitations to this deference in the following paragraphs, including deference for a limited timeframe (*i.e.*, 5 years).

As suggested by commenters, we have changed the language in this provision to be 5 years from the date of the "event" rather than the date of "demonstration submittal" as we

proposed. We believe that it is reasonable and appropriate to make this change to ensure that the exceptional events process is implemented in a manner consistent with the CAA. We also agree with commenters that “5 years from the date of the event” is the more appropriate time-frame given that we are promulgating requirements in 50.14(b)(8)(i)-(iv), which also rely on the date of the event.

As we noted in this preamble, we also agree with commenter recommendations that we defer to enforceable control measures implemented in accordance with an attainment or maintenance SIP, FIP or TIP. We have included these implementation plans in the regulatory text. We agree that FIPs and TIPs provide the same level of assessment of control measures during the development and approval process as attainment/maintenance SIP process previously described and that the only difference between these plans lies in the agency developing the plan and the agency to whom the plan applies, neither of which impact whether the measures contained in the plans constitute reasonable controls for purposes of exceptional events demonstrations. For several reasons, however, we do not agree that we should universally extend this same deference to BACM or fugitive dust control plans contained in air quality permits. First, control measures in air quality permits may or may not be EPA-approved and evaluated using the same rigor as controls in a SIP, FIP or TIP. Second, the best available control measures in an air quality permit apply to the permit holder and not to all sources potentially contributing emissions to a monitored exceedance or violation. While we are not deferring to BACM controls in air quality permits, we encourage air agencies to identify these measures in the collection of controls that they determine constitute “reasonable” controls for purposes of addressing the not reasonably controllable or preventable criterion.

The EPA disagrees with the suggestion from a few other commenters to defer to provisions in infrastructure SIPs to satisfy the not reasonably controllable or preventable criterion. CAA sections 110(a)(1) and 110(a)(2) require every state to develop and submit to the EPA an “infrastructure SIP” for each NAAQS within 3 years of the promulgation of a new or revised NAAQS. While infrastructure SIPs address a number of CAA requirements, including the requirement to identify emission limits for specific pollutants, infrastructure SIPs are not required to include attainment or maintenance demonstrations and are not required to demonstrate that the controls on particular sources are “reasonable.” Thus, the EPA-approved infrastructure SIPs do not necessarily constitute an assessment of those controls that are reasonable to have in place to address air quality impacts from particular types of events that may become the focus of exceptional events demonstrations. As with measures in air quality permits, while we are not deferring to measures identified in infrastructure SIPs to universally satisfy the not reasonably controllable or preventable criterion, we encourage air agencies to identify measures in infrastructure SIPs, NEAPs, mitigation plans, SMP and prospective assessments of reasonable controls in the collection of controls that they determine constitute “reasonable” controls for purposes of addressing the not reasonably controllable or preventable criterion. We note that provisions in these plans could, on a case-by-case basis with the proper showing, satisfy the not reasonably controllable or preventable criterion.

We are promulgating rule language that the timeframe for attainment/maintenance SIP deference is 5 years from the date of the SIP approval measured to the date of an event at issue. We solicited comment on whether and what other timeframes might be appropriate for this deference. In responding to this specific solicitation for feedback, commenters provided a range of options for SIP deference including 3 years, 5 years, 10 years, reliance on the SIP until a new

NAAQS is adopted or until the EPA disapproves or calls the SIP, and, as previously noted, no reliance on the SIP because any such deference is inappropriate. One commenter noted that a deference timeframe of 3 years is more consistent with design value averaging and the timeframe. We previously suggested in the 2013 Interim Exceptional Events Implementation Guidance, and other commenters argued, that 10 years is consistent with the timeframe for maintenance plan updates. The EPA considered this information and is now promulgating, as proposed, a deference timeframe of 5 years. After reviewing feedback received during the comment period, we retain our proposed language that 5 years represents a reasonable timeframe during which (1) the control measures in a current SIP (or FIP or TIP) address all event-relevant sources of current importance, (2) the control measures that were considered by the air agency and the EPA at the time the EPA last approved the SIP (or FIP or TIP) are the same measures that are known and available at the time of a more recent event, and (3) the conditions in the area have not changed in a way that would affect the approvability of the same SIP (or FIP or TIP) if it newly needed the EPA's approval. Additionally, as we discuss in Section IV.E.3 of this preamble, we encourage the use of 5 years of data when developing analyses to support the clear causal relationship criterion because we believe that 5 years of ambient air data represent the range of "normal" air quality. Using a 3-year period of deference might mask (or accentuate) the range of "normal" air quality, while using a 10-year deference timeframe could overlook new emissions sources, relevant control measures and control measure technologies, and other changes in the affected area that could influence the approvability of a SIP (or FIP or TIP).

We also note that in establishing a period of deference of 5 years, we are not implying that in periods longer than 5 years, the controls in a SIP automatically become inappropriate or insufficient. Rather, we are saying that in cases where the SIP was approved more than 5 years

prior to the date of the event (and the air agency is not under an obligation to revise the SIP), because of the passage of time, the SIP controls should not be presumed to satisfy the not reasonably controllable or preventable criterion. In such a case, the air agency should complete a case-specific assessment of the reasonableness of controls to satisfy the not reasonably controllable or preventable criterion. This case-by-case assessment would include the following components, which we are promulgating as rule text: (1) identify the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources, (2) identify the relevant SIP or other enforceable control measures in place for these sources and the implementation status of these controls, and (3) provide evidence of effective implementation and enforcement of reasonable controls, if applicable. As we identified earlier in this preamble, when we specify “local” sources, we mean those sources that are both within the jurisdiction of the state or tribe and that are also in the vicinity of or are located upwind of the monitor with the recorded exceedance or violation. “Local” sources could include, but are not limited to, large point sources (*e.g.*, large industrial sources, electric power plants, airports, etc), nonpoint sources (*e.g.*, residential heating, asphalt paving, etc.), mobile sources (*e.g.*, both on- and off-road vehicles, construction equipment, trains, and vessels), natural or biogenic sources (*e.g.*, off-gassing from soil, animals and vegetation).

We identified in the proposal these three components of a case-by-case assessment of the not reasonably controllable or preventable criterion and solicited comment on including these components as regulatory language. One commenter supported this suggestion, and, as a result, we are promulgating associated rule text. Although no commenters opposed including the

components as rule text, a number of commenters asked that we clarify our expectations with respect to these components. We do so here.

When identifying the sources of emissions causing and contributing to the monitored exceedance or violation, the air agency should first discuss the scope of the analysis with the reviewing EPA Regional office. This scope will be determined on a case-by-case basis considering the specifics of the individual event. For example, if an air agency claims that an event was regional in nature, then the area of focus for the not reasonably controllable or preventable criterion would likely be the county or counties involved in the “region.” If an affected air agency claims that an exceedance or violation was caused by an event originating in a nearby state, then the air agency would include in its assessment the area and the potentially contributing sources located between the subject upwind source and the affected monitor. Once the air agency and the EPA determine the appropriate area of analysis, the air agency should identify, within the area of analysis, those stationary, mobile (if applicable) and area sources and any other natural sources that emit the pollutant or precursors that are the subject of the demonstration.⁴⁵ In doing this, the air agency should include, for “major” point sources,⁴⁶ the facility name, the distance of the facility to the affected monitor, and emissions in terms of tons

⁴⁵ A recent emissions inventory could serve as a starting point when identifying sources of emissions within a given area of analysis. Air agencies should also consider other sources that potentially contribute to event-related emissions that may not be the focus of routine annual inventories, which are often required by federal, state or local rules for only a specific set of sources or pollutants.

⁴⁶ The term “major” can vary by pollutant and NAAQS and affected air agencies should discuss the expectation during the initial notification of a potential exceptional event process. Generally, however, we would consider “major” to be the thresholds used in the initial area designations process for the NAAQS in question. For example, for PM_{2.5}, major point sources are those whose sum of PM precursor emissions (PM_{2.5} + NO_x + SO₂ + VOC + NH₃) are greater than 500 tpy based on the most recent National Emissions Inventory (NEI) or SIP inventory.

per year (tpy) of the pollutant in question. Air agencies may identify other point sources and area sources by category.

For each source category and/or individual source, if appropriate, the air agency should identify applicable control measures in the SIP or in other state rules or ordinances and provide a statement as to why these controls are reasonable.⁴⁷ In addition to the SIP, state rules or local ordinances, air agencies could also identify control measures in individual permits, NEAPs, SMP, other mitigation plans, or USDA/Natural Resources Conservation Service (NRCS)-approved Best Management Practices (BMPs) (discussed in more detail in Section IV.F.2.b of this preamble). The air agency may also consider recent Reasonably Available Control Technology (RACT) / Best Available Control Technology (BACT) / Lowest Achievable Emission Rate (LAER) determinations in the affected area or in another area with similar sources or other appropriate measures. This assessment should include a review and description of any known instances of source noncompliance (*e.g.*, nearby facility upsets or malfunctions, failure to comply with applicable rules such as vacant lot stabilization or moisture requirements for area sources) that could have resulted in emissions of the relevant pollutant(s) that influenced the monitored measurements on the day(s) of the claimed events. The air agency would then identify

⁴⁷ To clarify, the EPA does not need to formally approve an air agency's rules and SIP before reasonable controls are officially in place for an exceptional events determination. These final rule revisions and final rule preamble indicate that we will defer to controls in a SIP/FIP/TIP approved by the EPA within 5 years of the date of the event provided the controls are specific to the pollutant and contributing anthropogenic sources. Thus, a SIP/FIP/TIP approved within 5 years of an event satisfies reasonable controls, but an area could also satisfy the not reasonably controllable or preventable criterion a number of other ways as discussed in this preamble. We also note that if an air agency has a record of other controls that are not yet part of a SIP/FIP/TIP (as could be the case for an attainment, unclassifiable/attainment or unclassifiable area or for a nonattainment or maintenance area undergoing SIP planning or revision process) but that are implemented and enforced and not just contemplated, that we would consider these controls to be SIP/FIP/TIP controls.

the implementation status of these controls and provide evidence of enforcement. As we indicated earlier, the EPA generally expects evidence that the controls determined to be reasonable, if any, were effectively implemented and appropriately enforced.

After addressing these components and in concluding that they have shown that reasonable measures to control the impact of the event on air quality were applied at the time of the event and that the event was therefore not reasonably controllable, the air agency should then apply the concept that if a set of control measures *should reasonably have been in place* for emission sources that contribute to the event emissions, then those controls *must* have been in place for the event to satisfy the not reasonably controllable or preventable criterion. To do this, the air agency should ask the following questions: (1) Do the control measures in the current SIP (or other programs) address all event-relevant sources of current importance? (2) Are the control measures that were considered by the air agency and the EPA at the time the EPA last approved the SIP the same measures that are known and available at the time of the more recent event? and (3) Have the conditions in the area changed in a way that would affect the approvability of the same SIP if it newly needed the EPA's approval? In our view an event is "not reasonably controllable" if an exceedance or violation occurs even when reasonable controls were actually in place and any further control would have been beyond what was reasonable. As indicated in these rule revisions, the EPA intends to consider these aspects when applying the concept of "reasonable controls" on anthropogenic sources.

The EPA notes that there are several instances in which this step-wise approach to addressing the not reasonably controllable or preventable criterion is not necessary. This analysis is *not* required when an air agency can rely on deference to control measures contained in a SIP (or FIP or TIP). It is also not required for exceedances or violations caused by events whose

emissions are solely from natural sources (*e.g.*, wildfire; stratospheric ozone intrusions; windblown dust from natural, undisturbed landscapes; large-scale and high-energy high wind dust events, volcanic activity) as demonstrated by satisfying the clear causal relationship (discussed in more detail in Section IV.E.3 of this preamble). In these cases, after addressing the clear causal relationship criterion, the air agency should affirmatively state that the not reasonably controllable or preventable criterion is satisfied by the fact that the natural event was of a character that could not have been prevented and could not have been controlled and that there were no contributions of event-related emissions from anthropogenic sources as demonstrated in the clear causal relationship showing. To clarify, once an air agency has satisfied the clear causal relationship criterion and has shown that the subject exceedance or violation was caused by an event whose emissions are solely from natural sources, then the not reasonably controllable criterion applies only to emissions from natural sources/event and not to local sources. And, for natural sources, air agencies can satisfy the criterion with a statement similar to that in the following example.

Consider, as an example, a stratospheric ozone intrusion event. Stratospheric intrusions are by nature not reasonably controllable or preventable. If an air agency has shown in the clear causal portion of its demonstration that ozone transported from the stratospheric ozone intrusion overwhelmingly caused each of the identified exceedances, then it has shown these are natural, intrusion events and controls on anthropogenic sources are irrelevant. The air agency can include the following statements in its demonstration:

“The analysis shows that ozone transported via a stratospheric ozone intrusion caused each of the identified exceedances in [Section A] of this demonstration. We conclude that the event identified should be considered a natural, stratospheric ozone intrusion event.”

(An air agency may include this type of conclusory language in the natural events section of the demonstration.)

“The analysis shows that ozone transported via a stratospheric ozone intrusion caused each of the identified exceedances in [Section A] of this demonstration. We conclude that the event in question was a stratospheric ozone intrusion event and thereby an unpreventable and uncontrollable natural event, and therefore not reasonably controllable or preventable.” (An air agency may include this type of conclusory language in the not reasonably controllable or preventable portion of the demonstration.)

The proposal also discussed and solicited feedback on the role of prior communications regarding expectations for reasonable controls. The proposal indicated that the EPA would consider communications between the EPA and the air agency when assessing “reasonableness” as part of assessing the technical information available to the air agency at the time the event occurred and what *should reasonably have been in place* at the time of the event for anthropogenic emission sources that contribute to the event emissions. We noted that because regulations and an area’s planning status are often evolving and changing and because these changes and iterative discussions often include issues regarding appropriate controls, including what controls would constitute “reasonable” controls for exceptional events purposes, we solicited comment on what form of communication would be most effective in conveying the EPA’s views to the affected air agency and whether this approach would be most appropriately addressed through guidance or regulatory text. Although one commenter responding to this specific solicitation for comment indicated that our decision should be promulgated in rule text, the majority of commenters indicated that expectations in guidance were appropriate. These commenters suggested that any formal communication notifying an air agency of specific

expectations regarding reasonable controls that should be, but are not yet, included in the SIP (or FIP or TIP) would be sufficient to override the deference to existing SIP (or FIP or TIP) controls. Commenters noted that such communications, either electronic or in hard copy, come from an authorized person within the EPA and be transparent and publicly available. One commenter suggested that the “authorized” person be the Regional Administrator. The EPA agrees with commenters that we would consider as sufficient any formal communication notifying the affected air agency of SIP (or FIP or TIP) deficiencies with respect to those controls that constitute reasonable controls for the sources and pollutants that are contained within the SIP (or FIP or TIP) and are the subject of an exceptional events demonstrations.⁴⁸ These communications can be conveyed electronically or in hard copy and come from any person within the EPA who is authorized to make such decisions. Generally, these authorized persons could be branch chiefs, air program managers, air division directors or the equivalent highest manager who exclusively oversees air programs, or regional administrators.

Related to these communications regarding expectations for reasonable controls, the proposal invited comment on whether there should be a grace or grandfathering period before a SIP (or FIP or TIP) call involving a relevant NAAQS that would effectively end the deference that applied prior to the SIP (or FIP or TIP) call. If an event were to occur during such a grace period, the existing SIP (or FIP or TIP) controls would still be given the deference. Several commenters supported, and no commenters opposed, incorporating this concept into regulatory

⁴⁸ The EPA acknowledges that not all SIP (or FIP or TIP)-related communications would negatively impact deference to the control measures contained within the SIP (or FIP or TIP). For example, if the EPA issued a letter notifying an air agency that its existing SIP (or FIP or TIP)-approved controls appear to meet a new SIP (or FIP or TIP) requirement (*i.e.*, BACM for the 2008 Ozone NAAQS would also be BACM for 2015 Ozone NAAQS), this same correspondence could support continued use of those controls as “reasonable” for exceptional events purposes.

language, noting that agencies should be given time to enact appropriate control measures after the EPA has identified this need. Commenters also noted that the timeframe for enacting these measures often depends on the widely-varying state/area-specific administrative requirements. In many cases, state and local agencies are prohibited by state law from enacting “stricter than federal” controls unless required by a federal action such as a nonattainment designation or SIP call. Therefore, in most circumstances, when a SIP (or FIP or TIP) revision is required, such as when new regulations must be incorporated or when an area receives a new designation, we think it is reasonable that agencies be given time to enact appropriate control measures after the need to do so has been identified and justification is in place to satisfy state laws. However, in some circumstances, the requirement to revise particular emission control measures in an implementation plan might be pursuant to a SIP call under CAA section 110(k)(5), which represents a determination by the EPA that the control measures in the existing implementation plan are substantially inadequate. In the proposal, the EPA acknowledged that such SIP calls might necessitate different treatment and took comment on that issue (*see* 80 FR 81878). After fully considering the issue, including comments received, we have determined that in such cases involving a SIP call, we do not think it would be reasonable for an air agency to continue to rely on those deficient measures in an exceptional events demonstration. Accordingly, we are including regulatory text that extends the deference to emission control measures contained in a SIP that is subject to a revision requirement to the due date for a required SIP revision. However, the regulatory text also explains that when the control measures applicable to the exceptional events demonstration are subject to a SIP call under CAA section 110(k)(5), the EPA will evaluate on a case-by-case basis the control measures in place to determine whether emissions were reasonably controlled at the time of the event.

3. Clear Causal Relationship Supported by a Comparison to Historical Concentration Data

a. Summary of Proposal

The EPA proposed to revise the 2007 Exceptional Events Rule language related to the clear causal relationship criterion as follows:

- To move the “clear causal relationship” element into the list of criteria that explicitly must be met for data to be excluded
- To subsume the “affects air quality” element into the “clear causal relationship” element
- To remove the “but for” element
- To remove the term “historical fluctuations” and replace it with text referring to a comparison to historical concentrations,
- To clarify that the comparison to historical concentrations is not a fact that must be proven
- To clearly identify in regulatory language the types of analyses that are necessary and sufficient in a demonstration to address the comparison to historical concentrations

As noted in the proposal, CAA section 319(b)(3)(B)(ii) requires that “a clear causal relationship must exist between the measured exceedances of a national ambient air quality standard and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location.” The clear causal relationship criterion establishes causality between the event and a measured exceedance or violation of a NAAQS. If the actual effect of the event were small, it may be very difficult to distinguish the effect of the event with sufficient confidence because many other factors could

have produced similar effects. As with the other exceptional events criteria, the EPA has used a weight of evidence approach when reviewing analyses to support a causal relationship between an event and a monitored exceedance or violation.

Showing that an event and elevated pollutant concentrations occurred simultaneously may not establish causality. The clear causal relationship section of an exceptional events demonstration should include analyses showing that the event occurred and that emissions of the pollutant of interest resulting from the event were transported to the monitor(s) recording the elevated concentration measurement(s). The last three of the bullets, summarized here, relate to analyses associated with demonstrating that a clear causal relationship exists between the event-related emissions and the monitored exceedance or violation (*i.e.*, they relate to the technical treatment of data, which is the subject of this section of the preamble). We discussed our proposed rationale for the first three bullets in Section V.B.1 of this preamble, Definition and Scope of an Exceptional Event.

The EPA proposed to remove the regulatory language in the 2007 Exceptional Events Rule that “[t]he event is associated with a measured concentration in excess of normal historical fluctuations, including background” and replace it with text referring to a comparison to historical concentrations. Our intent with the original language in the 2007 rule was to require air agencies to present event-influenced concentration data along with historical data and to quantify the difference, if any, between the event and the non-event concentrations thus supporting the weight of evidence within the clear causal relationship determination. We indicated in our November 2015 proposal that the phrase “in excess of normal historical fluctuations, including background” is vague and provides no additional value to historical concentration comparisons. Rather than use this language, we proposed that every exceptional events submittal must include

a demonstration of a clear causal relationship between the event-related emissions and the monitored exceedance or violation as supported by a comparison to historical concentration data.

To support the clear causal relationship generally, we proposed example analyses and guidance, shown in Table 1, as being appropriate for most event types.⁴⁹

Table 1. Example Clear Causal Relationship Evidence and Analyses

Example of Clear Causal Relationship Evidence	Types of Analyses/Information to Support the Evidence
Comparison to Historical Concentrations	Analyses and statistics showing how the observed event concentration compares to the distribution or time series of historical concentrations of the same pollutant
Occurrence and geographic extent of the event	Special weather statements, advisories, news reports, nearby visibility readings, measurements from regulatory and non-regulatory (<i>e.g.</i> , special purpose, emergency) monitoring stations throughout the affected area, satellite imagery
Transport of emissions related to the event in the direction of the monitor(s) where the measurements were recorded	Wind direction data showing that emissions from sources identified as part of the “not reasonably controllable or preventable” demonstration were upwind of the monitor(s) in question, satellite imagery, monitoring data showing elevated concentrations of other pollutants expected to be in the event plume
Spatial relationship between the event, sources, transport of emissions and recorded concentrations	Map showing likely source area, wind speed/direction and pollutant concentrations for affected area during the time of the event, trajectory analyses

⁴⁹ For purposes of summarizing example clear causal relationship analyses in one place, the EPA has included an entry for the comparison to historical concentrations showing in Table 1. The EPA notes that although the Interim High Winds Guidance and the Interim Q&A document discussed the comparison to historical concentrations showing, neither of these guidance documents presented this showing as part of the clear causal relationship. *See specifically Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/exceptevents_highwinds_guide_130510.pdf and *Interim Exceptional Events Rule Frequently Asked Questions*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/eer_qa_doc_5-10-13_r3.pdf.

Temporal relationship between the event and elevated pollutant concentrations at the monitor in question	Hourly time series showing pollutant concentrations at the monitor in question in combination with wind speed/direction data in the area where the pollutant originated/was entrained or transported
Chemical composition and/or size distribution (for PM _{2.5} to PM ₁₀) of measured pollution that links the pollution at the monitor(s) with particular sources or phenomenon	Chemical speciation data from the monitored exceedance(s) and sources, size distribution data
Comparison of event-affected day(s) to specific non-event days	Comparison of concentration and meteorology to days preceding and following the event, comparison to high concentration days in the same season (if any) without events, comparison to other event days without elevated concentrations (if any), comparison of chemical speciation data

We noted that we do not expect nor would all air agencies necessarily need to include all of the evidence and analyses identified in Table 1, but rather to use available information to build a weight of evidence showing. The proposal also noted that the EPA expects nonattainment areas to have more sophisticated air quality prediction tools, in some cases these tools include photochemical or regression models and modeling experience. Depending on the case-by-case nature of the event, these tools may be beneficial, particularly in situations where the causality between the event and a measured exceedance of a NAAQS is not clearly established with evidence and analyses identified in Table 1.

As we have noted previously, the EPA's mission includes preserving and improving, when needed, the quality of our nation's ambient air to protect human health and the environment. The EPA accomplishes this by developing the NAAQS for criteria pollutants, evaluating the status of the ambient air as compared to these NAAQS using data collected in the national ambient air quality monitoring network established under the authority of section 319(a) of the CAA, and by overseeing the states' programs to improve air quality, as needed. Thus, ambient air quality data are fundamental to the CAA and the protection of public health. Data

exclusions must also be consistent with the CAA. The “comparison to historical concentration” portion of the clear causal relationship criterion shows how the event-influenced data compare to other non-event related air quality data.

To clarify our expectations for the “comparison to historical concentrations” portion of the clear causal relationship showing, we proposed the evidence and analyses shown in Table 2 as rule text to indicate types of statistics, graphics and explanatory text regarding comparisons to past data. The proposed rule language also indicated that the analyses described in Table 2 are sufficient to satisfy the rule’s requirement regarding the comparison to historical concentration data and that the submitting air agency does not need to prove any specific threshold or “in excess of” fact.

As with other evidence in an exceptional events demonstration submittal, the EPA will use a weight of evidence approach in reviewing submitted demonstrations and will consider the “clear causal relationship” information, including the comparison to historical concentrations showing, along with evidence supporting the other Exceptional Events Rule criteria.

b. Final Rule

After considering the public comments as described in the following text, many of which supported our proposed approach, we are finalizing as proposed and revising the regulatory requirement that the demonstration to justify data exclusion must include a demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation. We are also finalizing a modified version of our proposal that the demonstration include analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times to support the clear causal relationship criterion. The modification to the language within 40 CFR

50.14(c)(3)(iv)(C) retains the statement that the Administrator shall not require an air agency to prove a specific percentile point in the distribution of data. We note, in response to comments, that “proving” a specific percentile point is different than “determining” a specific percentile point. Also in response to commenter feedback, we have removed the regulatory table identifying the specific analyses associated with the comparison to historical concentrations and included a revised version of the proposed table (*see* Table 2) in this preamble as guidance. Although the table includes several changes and clarifications suggested by commenters, we have retained the proposed analysis that involves “determining” the percentile ranking of the concentration in question because this assessment provides perspective for the clear causal showing.

Table 2. Evidence and Analyses for the Comparison to Historical Concentrations

Historical Concentration Evidence	Types of Analyses/Supporting Information^a
1. Compare the concentrations on the claimed event day with past historical data	<ul style="list-style-type: none"> • Provide the data in the form relevant to the standard being considered for data exclusion • Present monthly maximums of the NAAQS relevant metric (<i>e.g.</i>, maximum daily 8-hour average ozone or 1-hr SO₂) vs presenting monthly or other averaged daily data as this masks high values for the most recent 5-year period that includes the event(s)^b • Alternatively, if informative, include separate plots for each year (or season)^c • <i>See</i> examples at https://www.epa.gov/sites/production/files/2015-05/documents/ideasforshowingeevidence.pdf and Question 3 in the Interim Q&A document provides additional detail^d
2. Demonstrate spatial and/or temporal variability of the pollutant of interest in the area	<ul style="list-style-type: none"> • Prepare one or more time series plots showing the concentrations of the pollutant of interest at the affected monitor and nearby monitors • Compare concentrations on the claimed event day with a narrower set of similar days by including neighboring days at the same location (<i>e.g.</i>, a time series of two to three weeks) and/or other days with similar meteorological conditions (possibly from other years) at the same or nearby locations with similar historical air quality along with a discussion of the meteorological conditions during the same timeframe^e
3. Determine percentile ranking	<ul style="list-style-type: none"> • Determine 5-year percentile of the data requested for exclusion on a per monitor basis

	<ul style="list-style-type: none"> • Determine the annual ranking of the data requested for exclusion. This assessment may be potentially helpful to show when the non-event concentrations during the year with the exclusion request were lower than surrounding years
4. Plot annual time series to show the range of “normal” values (<i>i.e.</i> , Display Interannual Variability) ^f	<ul style="list-style-type: none"> • Prepare a time series plot covering 12 months (or all months in which the data were collected) overlaying at least 5 years of monitoring data from the event-influenced monitor to show how monitored concentrations compare at a given time of year and/or coincide with the subject event. This plot will display the non-event variability over the appropriate seasons or number of years. • For annual comparisons, use the daily statistic (<i>e.g.</i>, maximum daily 8-hour average, or maximum 1-hour) appropriate for the form of the standard being considered for data exclusion
5. Identify all “high” values in all plots	<ul style="list-style-type: none"> • Label “high” data points as being associated with concurred exceptional events, suspected exceptional events, other unusual occurrences, or high pollution days due to normal emissions (provide evidence to support the identification when possible) • Include comparisons omitting known or suspected exceptional events points, if applicable
6. Identify historical trends (optional if this trends analysis provides no additional “weight”)	<ul style="list-style-type: none"> • Describe how pollutant concentrations have decreased over the 5-year window, if applicable • Identify and discuss trends due to emission reductions from planning efforts and/or implementing emission control strategies • Identify and discuss trends or other variability due to meteorology or economics of an area • If appropriate, create a plot to show how a downward trend in pollutant concentrations over the 5-year historical data record obscures the uniqueness of the event-related concentration
7. Identify diurnal or seasonal patterns	<ul style="list-style-type: none"> • Show how the diurnal or seasonal pattern differs due to the event, if the event causes a change from typical diurnal/seasonal patterns

^a While the EPA recommends using 5 years of data in analyses to support the comparison to historical concentrations, we recognize that there may be exceptions to using 5 years of data such as when 5 years of data are not available for a given monitor or in case-by-case analyses such as those for prescribed fire on wildlands.

^b Section 8.4.2.e of appendix W (proposed revisions at 80 FR 45374, July 29, 2015) recommends using 5 years of adequately representative meteorology data from the National Weather Service (NWS) to ensure that worst-case meteorological conditions are represented. Similarly, for exceptional events purposes, the EPA believes that 5 years of ambient air data, whether seasonal or annual, better represent the range of “normal” air quality than do data from shorter periods.

^c “Season” can be pollutant and area specific. For example, the EPA defines ozone monitoring seasons in Table D-3 to Appendix D of Part 58: “Ozone Monitoring Season by State.” These seasons include, but may be longer than, an area’s typical photochemical ozone season. For exceptional events purposes, an area may want to include both the typical photochemical ozone season and the “season” in which the event happened (if they are different). Similarly, the “season” for PM may be in the winter (for areas influenced by wood smoke). The general concept behind “seasonal” analyses is to compare the season of anthropogenic pollutant generation to the season in which the event occurred.

^d *Interim Exceptional Events Rule Frequently Asked Questions*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/eer_qa_doc_5-10-13_r3.pdf.

^e If an air agency compares the concentration on the claimed event day with days with similar meteorological conditions from other years, the agency should provide information regarding any changes in wind patterns or sources of emissions of the pollutant(s) of concern in the area, including increases or reductions in the emissions inventory, or other known source of emissions information, that could affect the concentration of the pollutant(s) of concern during the exceptional event. If an air agency compares the concentration on the claimed event day to days immediately preceding and following the event day, the air agency should discuss and compare the meteorology on those days.

^f The EPA does not intend to identify a particular historical percentile rank point in the seasonal or annual historical data that plays a critical role in the analysis or conclusion regarding the clear causal relationship.

In summarizing the clear causal relationship section of its demonstration, the air agency should conclude with this type of statement: “On [day/time] an [event type] occurred which generated pollutant X or its precursors resulting in elevated concentrations at [monitoring location(s)]. The monitored [pollutant] concentrations of [ZZ] were [describe the comparison to historical concentrations including the percentile rank over an annual (seasonal) basis]. Meteorological conditions were not consistent with historically high concentrations, etc.” and “In addition to the comparison to historical concentrations showing, analyses X, Y and Z support Agency A’s position that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation and thus satisfies the clear causal relationship criterion.”

c. Comments and Responses

As indicated previously, numerous commenters supported revising the regulatory

language from “event is associated with a measured concentration in excess of normal historical fluctuations, including background” to “a comparison to historical concentrations.” Commenters supportive of the proposal agreed with the EPA’s position that the phrase “in excess of normal historical fluctuations, including background” is vague and provides no additional value to historical concentration comparisons. Commenters representing the environmental community urged the EPA to maintain the “in excess of normal historical fluctuations, including background” language included in the 2007 rule, arguing that removing this language simply because it is unclear effectively weakens clean air protections. The EPA does not see this change to the rule text as weakening the CAA protections. An analysis of measured concentrations, which inherently includes background, and evidence that supports a comparison to historical concentrations is still required to support the demonstration of the clear causal criterion for the data exclusion request to qualify as an exceptional event. Thus, the “comparison to historical concentrations” showing is not less stringent than the “in excess of normal historical fluctuations, including background” showing because the technical analysis remains robust.

Commenters generally supported requiring a historical concentrations showing as part of the clear causal relationship criterion. Several of these commenters suggested that the EPA include the proposed regulatory table identifying these historical concentrations analyses as guidance in the preamble rather than in regulatory text. Commenters offering this suggestion stated that because some of the identified analyses are required and others are optional, they are not universally applicable and are therefore best presented as guidance. As indicated in the final rule discussion, the EPA agrees with this approach and is removing the table from the final rule language and retaining it as guidance, with changes, in this preamble.

A number of other commenters provided feedback regarding the details of the clear causal relationship criterion, particularly asking that we lessen or remove certain analyses. Although we address these comments here and/or in the Response to Comments document that accompanies this final rule, we note that CAA section 319(b)(3)(B) requires the EPA to promulgate regulations, which “at a minimum” provide that exceptional events must be “demonstrated by reliable, accurate data.” The requirement for a “demonstration” necessarily imposes data-driven analyses.

One commenter requested that the EPA eliminate what is now Table 2 in this preamble from both rule and guidance because the EPA did not provide an acceptable range of percentiles or a process/methodology to determine whether the historical concentrations showing had been satisfied. In response to this commenter, the EPA notes that comparisons to historical concentrations help build a weight of evidence showing for the clear causal relationship criterion and add perspective to other analyses that air agencies may use in their clear causal showing. A demonstration may be less compelling if some evidence is inconsistent with the description of how the event caused the exceedance. For example, if an air agency describes an event as a *regional* dust storm or wildfire, then the EPA anticipates that most or all monitors within the same *regional scale* would be similarly affected by the event. That is, the EPA expects that the demonstration elements and factors (*e.g.*, clear causal relationship, reasonable controls, meteorology, wind speeds) would also support the case for a *regional* event. Comparison of concentrations and conditions at other monitors could thus be very important for the demonstration of a clear causal relationship. Alternatively, eliminating plausible non-event causes may also support a causal relationship between the event and the elevated concentration. In response to the commenter’s request to eliminate the showing based on a lack of information

about an acceptable range of percentiles or a process/methodology to determine whether the criterion has been satisfied, the EPA points to language in this section of the preamble and rule text that provides such criteria by indicating that the analyses described in Table 2 are sufficient to satisfy the rule's requirement regarding the comparison to historical concentration data and that the submitting air agency does not need to prove any specific threshold or "in excess of" fact (*see* 40 CFR 50.14(c)(3)(iv)(C)).

In response to other specific comments regarding the analyses in Table 2, two commenters noted that a comparison involving 5 years of data is an inappropriate time for the comparison to historical concentrations. As we note in footnote "a" to Table 2, we believe that 5 years of ambient air data, whether seasonal or annual, better represent the range of "normal" air quality than do data from shorter periods. We recognize, however, that some monitors do not have 5 years of data and/or may have periods of invalid data. The EPA recognizes that there may be exceptions to using 5 years of data. One commenter suggested that an appropriate comparison to historical concentrations for prescribed fires may involve "visual observations and/or modeled impacts based on biomass consumption or other ecological parameters" rather than comparisons using 5 years of monitoring data. The commenter explains that while we were not measuring air quality impacts 100 years ago, current fuel models may be used to estimate the area's fire history and, thus, historical concentrations influenced by smoke. The EPA agrees that the commenter's comparative analysis for prescribed fire on wildland could supplement the comparison to historical concentrations using monitoring data as part of the clear causal relationship showing. The EPA acknowledges that current fuel models could incorporate a timeframe for comparison that is longer than 5 years and could incorporate contributions from both prescribed fire and wildfire. We further note that such modeling could support the clear causal relationship by

showing that a given observed ambient concentration is similar to concentrations associated with past fires.⁵⁰ Such modeling, however, is not a substitute for the comparison to historical concentrations using monitoring data. The title of CAA section 319(b) is “Air quality monitoring data influenced by exceptional events.” The language at section 319(b)(3)(B)(ii) requires that “a clear causal relationship must exist between the measured exceedances of a national ambient air quality standard and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location.” Monitoring data are at the core of the rule. Generally, the form of most primary NAAQS (carbon monoxide and lead excluded) relies on 3 years of data. Regulatory determinations associated with these NAAQS employ data from regulatory monitors. Therefore, if an exceptional event influences a regulatory monitor that produces data, which will be used for a regulatory decision, 3 years of data will be available. Comparisons of monitored event-influenced data to modeled data, which are inherently predicted or estimated, do not carry the same weight under a weight of evidence approach. Additionally, because these monitoring data are readily available and accessible, these analyses are also relatively easy to produce.

In the same table, commenters asked for clarification regarding “seasonal” analyses. In response to this comment, the EPA has added a new footnote clarifying that “season” can be pollutant and area specific. For example, the EPA defines ozone monitoring “seasons” in 40 CFR part 58, appendix D, Table D-3, “Ozone Monitoring Season by State.” These seasons include, but may be longer than, an area’s typical photochemical ozone season. For exceptional events purposes, an area may want to include both the typical photochemical ozone season and the

⁵⁰ While this comparison contributes to plausibility, it does not necessarily mean that in the subject case, the exceedance or violation was not caused by some other source or factor. The comparison to actual historical concentrations on days not affected by fire can make this point.

“season” in which the event happened (if they are different). Similarly, the “season” for PM may be in the winter (for areas influenced by wood smoke). The general concept behind “seasonal” analyses is to compare the season of anthropogenic pollutant generation to the season in which the event occurred.

Continuing with additional requested clarifications regarding Table 2, another commenter asked that we clarify the language “time horizon.” As a result of the modifications to this table, we no longer use this term. Another commenter asks that we revise the language in footnote “e” to Table 2, which reads “...the agency should also verify and provide evidence that the area has not experienced significant changes in wind patterns, and that no significant sources in the area have had significant changes in their emissions of the pollutant of concern” to “...the agency should provide information regarding any changes in wind patterns or sources of emissions of the pollutant(s) of concern in the area, including increases or reductions in the emissions inventory that could affect the pollutant concentration during the exceptional event.” The EPA agrees that the suggested language better conveys our intent to require details of any changes rather than evidence of lack of changes. We have incorporated the commenter’s suggested language with the following revision into the footnote in Table 2 of this preamble: “...the agency should provide information regarding any changes in wind patterns or sources of emissions of the pollutant(s) of concern in the area, including increases or reductions in the emissions inventory, or other known source of emissions information, that could affect the concentration of the pollutant(s) of concern during the exceptional event.”

In response to a commenter’s request to clarify that the burden on the air agency does not change with moving the “clear causal relationship” element into the list of criteria that explicitly must be met for data to be excluded, we affirm that the burden does not increase. In our rule

revisions, we have clarified that air agencies must address all three of the core statutory elements and implicit concepts of CAA section 319(b) (*i.e.*, the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation, the event was not reasonably controllable or preventable and the event was caused by human activity that is unlikely to recur at a particular location or was a natural event) in an exceptional events demonstration. Prior to these rule revisions, the elements “affects air quality,” “not reasonably controllable or preventable,” and “human activity unlikely to recur at a particular location or a natural event” were included in the definition of an exceptional event, while the requirement at 40 CFR 50.14(c)(3)(iv) that a “demonstration to justify data exclusion shall provide evidence” included addressing the exceptional events definitional requirements, “clear causal relationship,” “historical fluctuations” and “but for.” Based on our experience implementing the rule, it is more clear to explicitly include all of the elements in a single place in the regulatory language.

F. Treatment of Certain Events Under the Exceptional Events Rule

The preamble of the November 2015 proposal stated that air quality data affected by the following event types are among those that could meet the definition of an exceptional event and qualify for data exclusion provided all requirements of the rule are met: (1) chemical spills and industrial accidents, (2) structural fires, (3) terrorist attacks, (4) volcanic and seismic activities, (5) natural disasters and associated cleanup, and (6) fireworks.⁵¹ We did not propose any changes to the definition of exceptional event to address these event types nor did we intend to imply that

⁵¹ Of these noted event types, the regulatory language at 40 CFR 50.14 only specifically addresses fireworks. We did not propose any revisions to the exclusion at 40 CFR 50.14(b)(2) for fireworks that are demonstrated to be significantly integral to traditional national, ethnic or other cultural events.

these are the only event types that could be considered for data exclusion under the Exceptional Events Rule. We simply repeated these event categories because they were specifically identified and discussed in the preamble to the 2007 Exceptional Events Rule and we wanted to acknowledge our continued belief that the identified events could be considered “exceptional.” The AQS database contains a more detailed list of other events that may also be identified for consideration. The EPA will consider other types of events on a case-by-case basis.

Based on our implementation experience, our proposal, and commenter feedback, the following sections clarify details for other potential exceptional events categories: transported pollution, wildland fires (including wildfires and prescribed fires), stratospheric ozone intrusions, and high wind dust events. We discuss each of these event categories in the following sections of this preamble.

Several commenters provided feedback on the EPA’s list of identified, but not discussed, potential exceptional events. One commenter noted that fireworks cannot be an exceptional event. This comment is beyond the scope of this rulemaking because we did not propose to change our consideration of fireworks under the Exceptional Events Rule and did not open this issue for comment (*see* additional explanation in footnote 51).

Another commenter asked why the EPA added as an explanation for the “chemical spills and industrial accidents” event type the following footnote: “A malfunction at an industrial facility could be considered to be an exceptional event if it has not resulted in source noncompliance, which is statutorily excluded from consideration as an exceptional event, *see* CAA 319(b)(1)(b)(iii), and if it otherwise meets the requirements of the Exceptional Events Rule.” While we are deleting the footnote in this final action, we note that we added the footnote

to the proposal to clarify the position stated in previous EPA guidance⁵² that limited noncompliance of local sources can be expected from time to time as a result of process upsets or malfunctioning control equipment. These events are usually classified as “upsets” or “malfunctions” as defined by the applicable State or local agency regulations, or they may be considered a violation of applicable emission or opacity limits. If these events are caused by upsets or malfunctions, they should be so noted and reported to the appropriate control agency. If they constitute a violation, legal remedies are available to relevant parties. In summary, if a malfunction is caused by or results in source noncompliance, then the resulting emissions *cannot* be considered for exclusion under the Exceptional Events Rule in light of the plain language of CAA section 319(b)(1)(B)(iii). However, if the malfunction was *not* caused by nor did it result from source noncompliance (*e.g.*, it resulted from an act of nature, such as a lightning strike) AND if the resulting emissions caused a NAAQS exceedance or violation AND if it otherwise meets the requirements of the Exceptional Events Rule, then the emissions from the malfunction could be considered for exclusion under the provisions of 40 CFR 50.14.

1. Transported Pollution

We did not propose any new guidance or specific regulatory language addressing the transported pollution that could be considered for exclusion under the Exceptional Events Rule. Rather, the proposal discussed the provisions within the CAA that provide regulatory relief for, or otherwise regulate, transported pollution and identified the circumstances under which air agencies can use these provisions. While our focus in this action is the Exceptional Events Rule (CAA section 319(b)), we also discuss transport under other CAA sections for context (*i.e.*, 179B

⁵² *Guideline on the Identification and Use of Air Quality Data Affected by Exceptional Events* (the Exceptional Events Policy), U.S. EPA, OAQPS, EPA-450/4-86-007, July 1986.

(International Transport), 182(h) (Rural Transport Areas), 110(a)(2)(D)(i)(I) (Interstate Transport) and 126 (Interstate Transport)). We are finalizing the language from our proposal with additional clarifications resulting from commenter feedback as guidance in this preamble.

a. Transported Pollution within the Exceptional Events Rule

To be considered for data exclusion, transported pollution must meet all of the Exceptional Events Rule criteria. Specifically, transported pollution must be event-related AND be either natural or caused by a human activity unlikely to recur at a particular location (*see* 40 CFR 50.14(c)(3)(iv)(E)). Human activities unlikely to recur at a particular location could include some of the event types mentioned in the introduction to this section of this preamble, such as chemical spills, industrial accidents, or terrorist activities. Routine emissions generated by and transported from anthropogenic sources are not exceptional events.⁵³ Additionally, transported emissions from natural sources must be event-related (*e.g.*, wildfires, stratospheric ozone intrusion, Saharan dust) versus ongoing on a daily basis to qualify for data exclusion under the Exceptional Events Rule. Natural emissions that occur every day and contribute to background levels, such as routine biogenic emissions of ozone precursors from vegetation and soils, do not meet the definition of an exceptional event because they are not deviations from normal or expected conditions. Despite being natural, they are not “events.”

In most cases, of the previously identified CAA sections, the mechanisms in the Exceptional Events Rule provide the most regulatory flexibility in that air agencies can use these

⁵³ An example of routine emissions generated by and transported from anthropogenic sources might include emissions of ozone precursors or directly emitted particulate matter (or PM precursors) from one state or foreign country’s power plants transported into another state or the U.S. The CAA provides other mechanisms like 179B (for international transport) or 110(a)(2)(D) and/or 126 (for interstate transport) to address these types of emissions.

provisions to seek relief from designation as a nonattainment area.⁵⁴ Because the Exceptional Events Rule may be used during the initial area designations process and may make a difference in an attainment versus a nonattainment decision, the EPA believes that the Exceptional Events Rule will often be the most appropriate mechanism to use when addressing transported emissions from out-of-state natural events or events due to human activity that is unlikely to recur at a particular location.

If an air agency determines that the Exceptional Events Rule is the most suitable approach to address contributions from event-related transported emissions, then the air agency must consider the source(s) of emissions contributing to the exceedance or violation to determine how to address individual Exceptional Events Rule criteria, specifically the not reasonably controllable or preventable criterion and the human activity unlikely to recur or a natural event criterion.

Under the CAA, the EPA generally considers a state (not including areas of Indian country) to be a single responsible actor. Accordingly, neither the EPA nor the 2007 Exceptional Events Rule provides special considerations for *intrastate* scenarios when an event in one part of a state, such as a county or air district, affects air quality in another part of the same state, assuming that the event occurs on land subject to state authority (versus tribal government authority). For cases involving intrastate transport, the state or local air agency should evaluate whether contributing event emissions from those parts of the state located between the subject upwind source and the affected monitor were not reasonably controllable or preventable. Section IV.E.2 of this preamble discusses the not reasonably controllable or preventable criterion in more

⁵⁴ The CAA section 179B (International Transport) and CAA section 182(h) (Rural Transport Areas) apply following, or concurrent with, the initial area designations process.

detail. Because there may be special considerations regarding air agencies' authority to regulate activity on federally-owned and managed lands (*e.g.*, national parks within the state), states and tribes should discuss with the appropriate FLM or other federal agency and their EPA Regional office early in the development of an exceptional events demonstration if they believe that sources on federally-owned and managed land contributed event-related emissions to a degree that raises issues of reasonable control.

Interstate and international transport events are different than *intrastate* events. As noted in Section IV.E.2 of this preamble and in the final regulatory language at 40 CFR 50.14(b)(8)(vii), the EPA maintains that it is not reasonable to expect the downwind air agency (*i.e.*, the state or tribe submitting the demonstration) to have required or persuaded the upwind foreign country, state or tribe to have implemented controls on sources sufficient to limit event-related emissions in the downwind state. As with any demonstration, the submitting (downwind) state should identify all natural and anthropogenic contributing sources of emissions (both local/in-state and out-of-state) to show the causal connection between an event and the monitored exceedance or violation. Although the downwind state must still assess potential contribution from in-state sources as discussed in Section IV.E.2 of this preamble, we are finalizing regulatory language at 40 CFR 50.14(b)(8)(vii) that the event-related emissions that were transported in the downwind state are "not reasonably controllable or preventable" for purposes of data exclusion. If the event-related emissions are international in origin and affect monitors in multiple states or regions, the EPA may assist affected agencies in identifying approaches for evaluating the potential impacts of international transport and determining the most appropriate information and analytical methods for each area's unique situation.

As with all exceptional events demonstrations, the EPA will evaluate the information on a case-by-case basis based on the facts of a particular exceptional event including any information and arguments presented in public comments received by the state in its public comment process or by the EPA in a notice-and-comment regulatory action that depends on the data exclusion.

b. Other Transport Mechanisms within the CAA

In the following paragraphs, we discuss other provisions within the CAA that provide regulatory relief for, or otherwise regulate, transported pollution and identify the circumstances under which air agencies can use these provisions.

- *CAA section 179B, International Transport* – CAA section 179B allows states to consider in their attainment demonstrations whether a nonattainment area might have met the NAAQS by the attainment date “but for” emissions contributing to the area originating outside the U.S. This provision addresses sources of emissions originating outside of the U.S. and provides qualifying nonattainment areas some regulatory relief from otherwise-applicable additional planning and control requirements should the area fail to reach attainment by its deadline. It does not provide a pathway for regulatory relief from designation as a nonattainment area; rather, CAA section 179B applies following the initial area designations process.
- *CAA section 182(h), Rural Transport Areas* – CAA section 182(h) authorizes the EPA Administrator to determine that certain ozone nonattainment areas can be treated as rural transport areas, which provides relief from more stringent requirements associated with higher nonattainment area classifications (*i.e.*, ozone

classifications above Marginal). Under CAA section 182(h), a nonattainment area may qualify as a Rural Transport Area if it does not contain emissions sources that make a significant contribution to monitored ozone concentrations in the area or in other areas, and if the area does not include and is not adjacent to a Metropolitan Statistical Area. Generally, an area qualifies as a Rural Transport Area because it does not contribute to its own or another area's nonattainment problem; rather, ozone exceedances are due to transported emissions, which could be international, interstate or intrastate in origin. The Rural Transport Area determination can be made during or after the initial area designations and classifications process.

- *CAA section 110(a)(2)(D)(i)(I), Interstate Transport* – CAA section 110(a)(2)(D)(i)(I) requires states to develop and implement SIPs to address the interstate transport of emissions from sources within their jurisdiction. Specifically, this provision requires each state's SIP to prohibit "any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will significantly contribute to nonattainment" of any NAAQS in another state, or which will "interfere with maintenance" of any NAAQS in another state. When the EPA promulgates or revises a NAAQS, each state is required to submit a SIP addressing this interstate transport provision as to that NAAQS within 3 years. The EPA interprets this interstate transport provision to address anthropogenic sources of emissions from other states, and not to address natural sources of emissions.

- *CAA section 126, Interstate Transport* – CAA section 126 provides states⁵⁵ and political subdivisions with a mechanism to petition the Administrator for a finding that “any major source or group of stationary sources emits or would emit any air pollution in violation of the prohibition of CAA 110(a)(2)(D)(i).”⁵⁶ Where the EPA grants such a petition, an existing source may operate beyond a 3-month period only if the EPA establishes emissions limitations and compliance schedules to bring about compliance with CAA section 110(a)(2)(D)(i) as expeditiously as practicable, but no later than 3 years after such finding. Similar to our interpretation for CAA section 110(a)(2)(D)(i), the EPA interprets the reference to “major source or group of stationary sources” in CAA section 126 to refer to anthropogenic sources of emissions from other states. The EPA’s interpretation is that this provision is not intended to address natural sources of emissions.

c. Comments and Responses

Several commenters asked that the EPA clarify how the provisions in the Exceptional Events Rule apply to background ozone concentrations and longer duration emissions sources such as biogenics, lightning and international transport. We provide some clarification in this section of the preamble, but also refer to the discussion in Section IV.B.3, which discusses rule applicability to background ozone.

⁵⁵ Tribes with treatment as a state authority (under the TAR) for CAA section 126 could also use this CAA provision.

⁵⁶ The text of CAA section 126 codified in the United States Code cross references CAA section 110(a)(2)(D)(ii) instead of section 110(a)(2)(D)(i). The courts have confirmed that this is a scrivener’s error and the correct cross reference is to section 110(a)(2)(D)(i), *See Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1040–44 (D.C. Cir. 2001).

Commenters also asked for clarification regarding assessing “event-related emissions that originate outside of the boundaries of the state within which the concentration at issue was monitored” for purposes of the not reasonably controllable or preventable criterion. As discussed in Section IV.E.2 of this preamble, the state or local air agency should evaluate whether contributing event emissions from those parts of the state located between the subject upwind source and the affected monitor were not reasonably controllable or preventable.

Another commenter suggests that where meteorological conditions play a pronounced role in transporting extra-jurisdictional emissions, those emissions would not prevent classification as a natural event. The commenter notes that because recurring natural events may qualify as exceptional events under the Exceptional Events Rule, international event-related emissions, because they are transported by recurring natural meteorological mechanisms, could also be exceptional events even if the source of emissions in another country is anthropogenic. The commenter continued that if the EPA does not consider all international emissions to be “natural events,” then the data associated with international emissions could still qualify for exclusion under the Exceptional Events Rule in those instances in which the magnitude of transported emissions or the resulting concentrations are “unusual.” As we have noted, over the course of implementing the Exceptional Events Rule, we have come to realize that an event needs to be defined by the source of the emissions. If the underlying source is a natural event (*e.g.*, wildfire) and the emissions influence a regulatory monitor, then it can be considered for exclusion under the Exceptional Events Rule. If the underlying source is anthropogenic then it can only be considered under the Exceptional Events Rule if the emissions from the original source is unlikely to recur at a particular location. The meteorological processes that result in pollutant transport are ongoing and thus not an event, even though their influence on ambient

concentrations at a particular time and location may be observed only occasionally and thus seem “event-like.”

2. Wildland Fires

The proposal noted that fires on wildland can play an important ecological role across the nation, benefiting those plant and animal species that depend upon natural fires for propagation, habitat restoration and reproduction. The proposed rule also noted the large contribution that wildfire can make to air pollution (including periodic high PM_{2.5} and PM₁₀, and VOC and NO_x, which are precursors to PM_{2.5}, PM₁₀ and ozone) and wildfire’s potential threat to public safety. The proposal further recognized that these adverse effects can be mitigated through management of wildland vegetation, including planned prescribed fires and letting some wildfires proceed naturally (typically those with lower fire intensity and severity).

The proposal also recognized, consistent with the EPA’s past practice, that both wildfires and prescribed fires, under certain circumstances, can be considered exceptional events. The preamble to the 2007 Exceptional Events Rule, however, used unclear or undefined fire-related terminology, making the preparation of some fire-related demonstrations particularly challenging. Recognizing some of these unique challenges associated with fires on wildland, we proposed a number of fire-related revisions to the Exceptional Events Rule for wildfires and prescribed fires that occur on wildland.⁵⁷

⁵⁷ While we proposed, and are finalizing, provisions only for fires that occur predominantly on wildland, we did not intend to restrict wildfires on other types of land from receiving similar treatment as wildfires on wildland. In addressing the not reasonably controllable or preventable criterion in a demonstration for a wildfire that is not on wildland, air agencies should state that available resources were reasonably aimed at suppression and avoidance of loss of life and property and that no further efforts to control air emissions from the fire would have been reasonable.

These revisions included proposed regulatory language for certain fire-related definitions, clarification and associated regulatory text related to using SMP and BSMP to satisfy exceptional events demonstration and program implementation elements, and new Exceptional Events Rule provisions to specifically address prescribed fire exceptional events issues. We provide additional detail in the separate sections on wildfires (Section IV.F.2.a of this preamble) and prescribed fire (Section IV.F.2.b of this preamble).

As we implement the changes we are promulgating in this regulatory action, we remain committed to working with federal, state, local, tribal and private land owners/land managers and state, tribal and local air quality agencies to effectively manage prescribed fire use to reduce the impact of catastrophic wildfire-related emissions on ozone, PM₁₀ and PM_{2.5}.

a. Wildfires

Summary of Proposal. The EPA proposed the following guidance, clarifications and rule revisions to assist air agencies preparing exceptional events demonstrations for wildfires.

(i) *Definition of wildland and wildfire.* The EPA proposed to codify in regulatory language the definition of “wildland” by using the October 2014 National Wildfire Coordinating Group (NWCG) Glossary of Wildland Fire Terminology⁵⁸ definition that a wildland is “an area in which human activity and development is essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.” As

⁵⁸ National Wildfire Coordinating Group. Glossary of Wildland Fire Terminology, PMS 205. October 2014. We are retaining our proposed definition of the wildland although the NWCG has revised its October 2014 glossary. The October 2015 glossary, which became available after the November 2015 exceptional events proposal, is available at <http://www.nwcg.gov/glossary-of-wildland-fire-terminology>.

noted in the proposal, wildland can include forestland,⁵⁹ shrubland,⁶⁰ grassland⁶¹ and wetlands.⁶² This proposed definition of wildland includes lands that are predominantly wildland, such as land in the wildland-urban interface.^{63,64}

The proposed definition for wildland considered the types of human intervention that could affect whether a land is considered a “wildland” and stated that the presence of fences to limit the movement of grazing animals, or of infrastructure to provide water to grazing animals, would not prevent a land area from being wildland. The proposal further clarified that cultivated cropland (*i.e.*, a field that is plowed or disked or from which crops are removed on an annual or more frequent basis) is not wildland and land areas on which nursery stock is grown to

⁵⁹ Forestland is land on which the vegetation is dominated by trees or, if trees are lacking, the land shows historic evidence of former forest and has not been converted to other uses.

Definition available at <https://globalrangelands.org/glossary>.

⁶⁰ Shrubland is land on which the vegetation is dominated by shrubs. Definition available at <https://globalrangelands.org/glossary/>.

⁶¹ Grassland is land on which the vegetation is dominated by grasses, grass like plants, and/or forbs. This definition has changed since the EPA proposed the definition of grassland. We are retaining the proposed definition. The current Global Rangelands definition is available at <https://globalrangelands.org/glossary>.

⁶² Wetlands, as defined in 40 CFR 230.3(t), means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

⁶³ The wildland-urban interface is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. The term describes an area within or adjacent to private and public property where mitigation actions can prevent damage or loss from wildfire. *See*, Glossary of Wildland Fire Terminology, PMS 205. October 2014. We are retaining our proposed definition of the wildland and our proposed description of the wildland-urban interface although the NWCG has revised its October 2014 glossary. The October 2015 glossary, which became available after the November 2015 exceptional events proposal, is available at <http://www.nwcg.gov/glossary-of-wildland-fire-terminology>.

⁶⁴ We would generally treat a large prescribed fire in a wildland-urban interface area as a prescribed fire on wildland, subject to the prescribed fire provisions described in this document. We do not expect a small prescribed fire in an interface area (*e.g.*, a prescribed fire ignited by a single landowner on his/her personal property) to generate emissions that would raise exceptional events issues.

marketable size (*e.g.*, Christmas tree farms) are generally not wildland unless they are “wild” in terms of having only limited human entrance and intervention for management or removal purposes thereby resulting in a complex ecosystem. The proposed rule indicated that managed timberlands⁶⁵ could be considered wildland if they have a complex ecosystem affected by only limited human entrance and intervention. We invited comment on incorporating these examples of land use types into the regulatory definition of wildland.

We also proposed in regulatory text, the following definition of “wildfire,” a “wildfire is any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions; or a prescribed fire that has been declared to be a wildfire. A wildfire that predominantly occurs on wildland is a natural event.”

(ii) *Not reasonably controllable or preventable.* As proposed and as with other natural events, the “not reasonably controllable or preventable” criterion applies to wildfires. The proposed rule articulated that because wildfires on wildland are unplanned, fire management agencies generally have either no advanced notice or limited and uncertain notice of wildfire ignition and location. In addition, many areas of wildland are very remote and rugged, and thus not easily reached and traversed. These factors generally limit preparation time and on-site resources to prevent or control the initiation, duration or extent of a wildfire. Also, by their nature, catastrophic wildfires typically present some risk of property damage, ecosystem damage and/or loss of life (of the public or firefighters), which is a strong motivation for appropriate suppression and control efforts. The EPA believes that land managers and other fire management entities have the motivation and the best information for taking action to reasonably prevent and

⁶⁵ Timberland is land on which the natural potential vegetation is forest. It may be managed primarily for the production and harvest of timber. Definition available at <https://globalrangelands.org/glossary/>.

limit the extent of wildfires on wildland, thus also controlling the resulting emissions. Therefore, the EPA believes that it is not useful to require air agencies to include in their individual wildfire exceptional events demonstrations descriptions of prevention and control efforts employed by burn managers/wildfire responders to support a position that such efforts were reasonable. The EPA therefore proposed in regulatory language a rebuttable presumption that every wildfire on wildland satisfies the “not reasonably controllable or preventable” criterion unless evidence in the record demonstrates otherwise and that satisfying this criterion for wildfires on wildland would involve referencing the appropriate regulatory citation in the demonstration. The proposal further indicated that in situations in which a fire manager could have suppressed or contained a wildfire but allowed the fire to continue burning through an area with a current, in-place land management plan calling for restoration through natural fire or mimicking the natural role of fire, that we would expect the fire manager to employ appropriate BSMP as described in Section IV.F.2.b of this preamble when possible.

(iii) *Coordinated communications.* As stated in the proposal, regardless of the considerations for wildfires, the EPA urges land managers and air agencies to coordinate, as appropriate, in developing plans and appropriate public communications regarding public safety and reducing exposure in instances where wildfires are potential exceptional events and contribute to exceedances of the NAAQS. Coordinated efforts can help air agencies satisfy the Exceptional Events Rule obligation at 40 CFR 51.930 that air agencies must provide public notice and public education and must provide for implementation of reasonable measures to protect public health when an event occurs.⁶⁶ Also, when wildfire impacts are frequent and significant in a particular area, land managers, land owners, air agencies and communities may

⁶⁶ 72 FR 13575 (March 22, 2007).

be able to lessen the impacts of wildfires by working collaboratively to take steps to minimize fuel loading in areas vulnerable to fire.⁶⁷ Fuel load minimization steps can consist of both prescribed fire and mechanical treatments, such as using mechanical equipment to reduce accumulated understory.

Final Rule. We are finalizing, as proposed, for the reasons discussed in our proposal and herein, and as supported by several commenters, the following definition of wildland: “*Wildland* means an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.” In finalizing this definition, we are retaining, as guidance, the proposed examples of land use types and types of human intervention that are considered wildland (or not) in the preamble of this final rule. Many commenters supported this approach while others preferred incorporating land use types and specifically allowable types of structures (*e.g.*, fences to limit the movement of grazing animals) into the regulatory definition. We have determined that because the presented land use types and clarifications regarding allowable structures and human intervention are only examples, and not an all-inclusive list of all lands that could be considered “wildland,” guidance is more appropriate for these details than rule. We also clarify, at the request of one commenter, that we would generally consider lands like state and national parks and wildlife refuges (provided they are primarily wild and natural and provided hunting, if allowed, is limited) to be wildland. We are not including the modifications suggested by several commenters that would change the phrase “development is essentially non-existent” to

⁶⁷ One example of this collaborative approach is the evolving interagency Wildland Fire Air Quality Response Program, which has developed resources to help address and predict smoke impacts from wildfires to reduce public exposure to wildfire smoke. Additional information is available in the docket for this action (*see* EPA-HQ-OAR-2013-0572, Wildland Fire Air Quality Response Program).

“development is limited in scope.” First, the language “limited in scope” in the phrase “development is limited in scope” is subjective and would create additional uncertainty and ambiguity, which is not intended in this action. Additionally, when considering the term “wildland,” the word “wild,” by definition, implies a natural, uncultivated or uninhabited region. Conversely, “development” implies growth, construction and, potentially, groupings of buildings. Modifying the definition as proposed by the commenters could be interpreted to mean that parcels of land with some empty space between groupings of buildings (*e.g.*, cultivated and inhabited areas) could be wildland. This is not our intent. Another commenter suggested that because “wild” implies minimal ongoing ecological impacts from human activity and not an infrequent presence of humans and their structures that we change the regulatory definition to “wildland means an area where the impact on the ecosystem from human development and agriculture is essentially nonexistent, except for widely separated roads, railroads and power lines.” While we agree with the commenter’s perspective regarding very limited human impact on the ecosystem, we believe that the definition we are promulgating conveys similar intent and will have the same practical effect.

Also related to the definition of wildland, several states asked that we specifically address prescribed fires on cultivated cropland and other agricultural lands. As we proposed and as we are finalizing in this rule, the fire-related provisions apply specifically to fires that occur predominantly on wildland. Air agencies contemplating preparing fire-related exceptional events demonstrations for fires not on wildland, should consult with their reviewing EPA Regional office. The EPA will review submitted demonstrations on a case-by-case basis considering the specific merits of each event.

Comments and Responses. After consideration of the public comments, we are finalizing a modified version of our proposed definition of wildfire: “*Wildfire* is any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions, or a prescribed fire that has developed into a wildfire. A wildfire that predominantly occurs on wildland is a natural event.” The final revised definition includes “a prescribed fire that has developed into a wildfire” instead of the proposed language “a prescribed fire that has been declared to be a wildfire.”

Some commenters supported the original proposed definition, but others recommended deleting the phrase “a prescribed fire that has been declared to be a wildfire” from the definition because they disagree with allowing burners to “declare” a prescribed fire to be a wildfire. Commenters noted that burn managers might make such a declaration for reasons other than their unanticipated inability to control the deliberately ignited fire. We note that the proposed definition of wildfire did not require that the objective be to put out such a fire for it to meet the definition. When an unplanned fire on wildland does not threaten catastrophic consequences (*e.g.*, consequences to public health, safety or property) and when the wildfire is burning on land that would otherwise be identified for ecosystem management (*e.g.*, fuels management through prescribed burning), it may be appropriate to allow the fire to continue burning under managed conditions. This fire management scenario was not our intended focus in proposing the “declaration” language. Rather, as stated in the proposal, “a prescribed fire that has been declared to be a wildfire” refers to specific instances in which the conditions of a particular prescribed fire have developed in an unplanned way such that its management challenges are essentially the same as if it were a wildfire. The federal, state and tribal wildland fire management community uses the terminology “prescribed fire declared wildfire” to describe the

infrequent and significant instances when meteorological and/or other environmental conditions, resource availability, or other unforeseen circumstances lead the burn manager to make such a declaration to protect the health and safety of fire management staff and the public. For example, if the prescribed fire has escaped secure containment lines and requires suppression along all or part of its boundary or if it no longer meets the resource objectives (*e.g.*, smoke impact, flame height). It was not our intention to allow categorical re-definition of some types of prescribed fire to be wildfires. Our intent was to clearly identify those fires that could be considered wildfires and those that would be considered prescribed fires. In doing this, we also identified the applicable demonstration requirements under the Exceptional Events Rule. That is, wildfires and prescribed fires on wildland have different requirements for exceptional events demonstrations based on the practicality of prevention/control (*i.e.*, the approach to addressing the not reasonably controllable or preventable criterion) and on the natural versus anthropogenic origin of the fire (*i.e.*, the human activity that is unlikely to recur or a natural event). When considering prevention/control for purposes of exceptional event categorization, a prescribed fire effectively becomes like a wildfire when, for example, the prescribed fire escapes secure containment due to unforeseen circumstances (*e.g.*, a sudden shift in prevailing winds). In these instances, the burn manager would no longer control the path of the fire. Thus, the fact that the initial fire was deliberately ignited should not result in the entire burn (*e.g.*, the duration and extent of the burn) needing to follow the rule requirements for prescribed fires on wildland. Given these potential circumstances, we proposed to rely on the burn manager's (or another individual familiar with the circumstances of the fire) declaration that the prescribed fire has become a wildfire. Because many commenters expressed concern with the "declaration" language, we have changed the phrase to "a prescribed fire that has developed into a wildfire," by which we mean that has

developed in an unplanned way such that its management challenges are essentially the same as if it had been initiated by an unplanned ignition.” We believe that this revised language conveys our original intent. In showing that a prescribed fire “has developed into a wildfire,” air agencies should include the following documentation when addressing the “human activity unlikely to recur at a particular location or a natural event” criterion in their demonstration: (1) news reports or notifications to the public characterizing the nature of the fire and (2) the demonstration submitter’s explanation of the origin and evolution of the fire.

All commenters providing feedback on the EPA’s proposal to grant a rebuttable presumption that every wildfire on wildland satisfies the “not reasonably controllable or preventable” criterion unless evidence in the record demonstrates otherwise agreed with the EPA’s proposed regulatory language. We have therefore finalized the provision at 40 CFR 50.14(b)(4) that the “Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator’s satisfaction that emissions from wildfires caused a specific air pollution concentration in excess of one or more national ambient air quality standard at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Provided the Administrator determines that there is no compelling evidence to the contrary in the record, the Administrator will determine every wildfire occurring predominantly on wildland to have met the requirements...regarding the not reasonably controllable or preventable criterion.”

b. Prescribed Fires

The proposal stated, and this final rule repeats, the EPA’s recognition that use of prescribed fire on wildland can influence the occurrence, severity, behavior and effects of catastrophic wildfires and benefit the plant and animal species that depend upon natural fires for

propagation, habitat restoration and reproduction, as well as a myriad of ecosystem functions (e.g., carbon sequestration, maintenance of water supply systems and endangered species habitat maintenance). The EPA formally recognized in the 1998 *Interim Air Quality Policy on Wildland and Prescribed Fires*⁶⁸ that federal, state, local, tribal and private land owners/land managers use prescribed fire on wildland to achieve some of these resource benefits, to correct the undesirable conditions created by past wildfire suppression management strategies and to reduce the risk of catastrophic wildfires to the public.

Summary of Proposal. The EPA proposed the following guidance, clarifications and rule revisions to assist air agencies preparing exceptional events demonstrations for prescribed fire on wildland.

(i) *Definition of a prescribed fire.* We proposed to adopt in rule language a modified version of the then-current NWCG-recommended definition of a prescribed fire: “[a]ny fire intentionally ignited by management actions in accordance with applicable laws, policies and regulations to meet specific land or resource management objectives.” In this definition, “management” refers to the owner or manager of the land area to which prescribed fire is applied. The proposal replaced the original NWCG language “specific objectives” with “specific land or resource management objectives.”

(ii) *Events caused by human activity.* We proposed regulatory language stating that prescribed fires are events caused by human activity and, therefore, to be considered an exceptional event, every prescribed fire demonstration must address the “human activity unlikely to recur at a particular location” criterion.

⁶⁸ *Interim Air Quality Policy on Wildland and Prescribed Fires*. U.S. EPA. April 23, 1998. Available at <http://www.epa.gov/ttn/oarpg/t1/memoranda/firefnl.pdf>.

(iii) *Unlikely to recur at a particular location.* The proposed rule set forth generally applicable guidelines to clarify both “unlikely to recur” and “at a particular location.” In this action, we discussed these guidelines for most events caused by human activity in Section IV.E.1 of this preamble, but we also clarified that specific approaches apply for prescribed fires on wildland, which we discuss here.

Our proposed rule indicated that when characterizing the “human activity that is unlikely to recur at a particular location” criterion, a demonstration for a prescribed fire on wildland could use one of two benchmarks to describe the expected frequency of prescribed fires on wildland:⁶⁹ (1) the natural fire return interval as articulated in the 2007 preamble or (2) the prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem. The proposal also stated that multi-year land or resource management plans prepared by the land management agency or any private property owner generally include documentation of these established fire intervals. Considering these two concepts, we proposed rule text that considered a demonstration’s referencing of a multi-year land or resource management plan⁷⁰ (and including either a copy or an internet link to the plan) with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species that also identifies the subject area as a candidate for prescribed fire to be dispositive evidence that a particular fire conducted in accordance with such a plan satisfies the “unlikely to recur at a particular location” criterion. The proposal noted that referencing a fire management plan for tribal or private lands that has been reviewed and

⁶⁹ The EPA will assess benchmarks for the expected frequency of prescribed fires not on wildland on a case-by-case basis.

⁷⁰ These plans could also include fire management plans, prescribed fire on wildland management plans, landscape management plans or equivalent public planning documents.

certified by the appropriate fire and/or resource management professionals and agreed to and followed by the land owner/manager can also satisfy the “unlikely to recur at a particular location” criterion.

(iv) *Not reasonably controllable or preventable*. The proposed rule stated that, consistent with current practice and 2007 preamble and rule language, the EPA considers it appropriate for air agencies to rely on an in-place and implemented state-certified SMP or on a burn manager’s use of BSMP that minimize emissions and control impacts, in lieu of a state-certified SMP, to satisfy the controllability prong of the “not reasonably controllable or preventable” criterion. We also proposed that, provided there is no compelling evidence to the contrary in the record, an air agency could rely upon, comply with and reference a multi-year land or resource management plan for a wildland area with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire to satisfy the preventability prong of the “not reasonably controllable or preventable” criterion. We provide further context from our proposed action in the paragraphs that follow.

Because the 2007 Exceptional Events Rule used the terms SMP and BSMP without defining them, our proposed rule provided clarity. With respect to a SMP, the proposal noted that at a minimum, a state-certified SMP would include provisions for (i) authorization to burn, (ii) minimizing air pollutant emissions, (iii) smoke management components of burn plans, (iv) public education and awareness, (v) surveillance and enforcement, and (vi) program evaluation. We also indicated that “certification” requires that a responsible state or delegated local agency certify in a letter to the Administrator of the EPA, or a Regional Administrator, that it has

adopted and is implementing a SMP. We solicited comment on incorporating these SMP elements into rule text language.

The proposal continued the discussion of SMP by noting that states with certified SMP typically have robust communications between officials concerned with air quality impacts and officials and members of the public who use prescribed fire. These groups communicate during the development of the SMP, during the day-to-day burn authorization process and in the periodic review and potential revision of the SMP. For these reasons, the EPA proposed to accept the testimony of the air agency submitting the exceptional events demonstration that the SMP is being implemented, provided that prior to the EPA's acting on a demonstration, the record contains no clear evidence to the contrary.

The proposed rule provided similar detail for BSMP by identifying in the rule text six BSMP as being generally appropriate, and generally endorsed and followed by federal, state and local agencies and private landowners, for exceptional events purposes for prescribed fires on wildland as well as for other prescribed fires. The six BSMP (*i.e.*, evaluating smoke dispersion conditions, monitoring effects on air quality, recordkeeping/maintaining a burn or smoke journal, communicating, considering emission reduction techniques, and sharing the airshed) came from guidance on BSMP for prescribed fires provided by the USDA Forest Service and USDA NRCS.⁷¹ The proposal noted that while the BSMP are broadly stated, burn managers use site-specific considerations to select the exact actions of each type and apply them to specific burn projects. The EPA proposed to accept as evidence of the use of BSMP the burn manager's statement that he or she employed applicable BSMP for a prescribed fire. The proposal noted

⁷¹ USDA Forest Service and Natural Resources Conservation Service, Basic Smoke Management Practices Tech Note, October 2011, http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046311.pdf.

that documentation of evidence could consist of a copy of the routine post-burn report or a letter prepared by the burn manager. While the EPA asserted in the proposal that we would work collaboratively with other federal agencies to make post-burn reports available to the air agencies that need them, we also encouraged land managers and other organizations employing prescribed fire to work with states and tribes to develop an efficient process to coordinate fire planning activities, issue public health advisories, if needed, and share relevant fire-related documentation, including pre-and post-burn reports.

The proposal provided similar detail with respect to addressing the “prevention” prong of the “not reasonably controllable or preventable” criterion stating that because prescribed fires are intentionally ignited, clarifying preventability is particularly relevant. The proposal noted that because both SMP and BSMP generally apply to the planning, execution and follow-up once the decision has been made to ignite a burn, they, therefore, do not specifically address prevention or deciding *not* to burn. The proposal stated that an affected agency should conclude a prescribed fire to be not reasonably preventable based on the benefits that would be foregone if the fire were not conducted. We articulated “forgone benefits” as those objectives in a multi-year fire management plan that establish, restore and/or maintain a sustainable and resilient wildland ecosystem. The proposed regulatory text intended to rely on the benefits in these plans as satisfying the not reasonably preventable prong of the not reasonably controllable or preventable criterion provided there is no compelling evidence to the contrary in the record when the EPA approves the associated exceptional events demonstration. The proposal provided additional detail regarding the development of these multi-year land or resource management plans.

The proposal also removed the phrase “and must include consideration of development of a SMP” from the sentence of the existing text of 40 CFR 50.14(b)(3) that in the 2007

Exceptional Events Rule read, “If an exceptional event occurs using the basic smoke management practices approach, the State must undertake a review of its approach to ensure public health is being protected and must include consideration of development of a SMP.”

Final Rule. We are finalizing in regulatory language, as proposed and for the reasons discussed in our proposal and herein, the following definition of prescribed fire: a “prescribed fire is any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific land or resource management objectives.”

We are also finalizing our proposal that a prescribed fire can satisfy the human activity unlikely to recur at a particular location criterion if certain requirements are met and provided there is no compelling evidence to the contrary in the record. Specifically, the air agency must describe the actual burn frequency, but may rely on either the natural fire return interval or the prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan⁷² with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire. As we noted in the proposal, the EPA understands that multi-year plans incorporate factors relevant to identifying and selecting the areas and times under which management will initiate a specific prescribed fire. We also recognize that evaluating the behavior and results of prior prescribed fires aids in determining the frequency and need for future prescribed fire in a given area. Thus,

⁷² On a case-by-case basis, in the absence of a multi-year plan, the EPA would also consider a prescribed fire on wildland conducted on a fire return interval established according to scientific literature to satisfy the not reasonably controllable or preventable criterion provided the prescribed fire was also conducted with the objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and conducted in compliance with either a state-certified SMP or BSMP. This case-by-case approach is similar to the approach currently used under the 2007 Exceptional Events Rule.

we acknowledge that a multi-year plan with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species may include general targets for the frequency of prescribed fire use and that management may deviate from the general plan due to unexpected differences between planned and actual fire behavior, landscape or ecosystem characteristics, fuel loading patterns and weather patterns. As a result, when the EPA reviews an exceptional events demonstration for a prescribed fire conducted under a wildland management plan, we intend to compare the actual time pattern of prescribed fires on the land with the pattern described in the applicable multi-year plan in a general way, rather than treating the multi-year plan as containing a specific schedule to which management must adhere. For example, if the wildland management plan identified an approximate 5-year burn interval, the EPA would not disapprove a demonstration if the burn occurred on a 4-year or a 6-year interval, provided, of course, that the demonstration met all other Exceptional Events Rule criteria. Also, as we discussed in more detail in the proposal and consistent with our recognition of the ecosystem benefits of prescribed fire, “sustainable and resilient wildland ecosystem” could include maintaining a regenerated forest in a healthy condition able to withstand and/or diminish the effects of catastrophic wildfire.

We are finalizing our proposed regulatory language that a prescribed fire must be conducted under an adopted and implemented certified SMP or must have used appropriate BSMP to satisfy the controllable prong of the not reasonably controllable or preventable criterion. As we indicated in the proposal, “certification” requires that a responsible state or delegated local agency certify in a letter to the Administrator of the EPA, or a Regional

Administrator,⁷³ that it has adopted and is implementing a SMP.⁷⁴ Past certifications provided to the EPA through this process are sufficient to meet the “certified” SMP language in this final action. An air agency with a current SMP that has not been certified according to this process could pursue certification of its existing SMP. SMPs that have been incorporated into a SIP are “certified.” We are retaining Table 3, which identifies generally appropriate BSMP, in the regulatory text. To the proposed version of the table, we have added a footnote to indicate that the listing of BSMP is not intended to be all-inclusive. Burn managers can consider other appropriate BSMP as they become available due to technological advancement or programmatic refinement. While not in regulatory text, we also incorporate into this final rule preamble, as guidance, Table 4, which includes example content for a burn report. The preamble to this final rule identifies burn reports as one example of documentation that air agencies can use in their exceptional events demonstrations for prescribed fires to show the implementation of BSMP. After incorporating commenter feedback into the descriptions of some of these components, we are retaining in the preamble, as guidance, the following components of a certified SMP:⁷⁵

- Authorization to Burn - Includes a process for authorizing or granting approval to

⁷³ As discussed in more detail in Section IV.G.7 of this preamble, concurrent with these rule revisions, the EPA has revised the delegation of authority for exceptional events decision making to allow for redelegation from the EPA Regional Administrator to the Regional Air Division Director or equivalent highest manager who exclusively oversees air programs. If an EPA Regional office elects to pursue redelegation, then a state could “certify” its SMP by sending a letter to the delegated official in the EPA Regional office.

⁷⁴ The EPA anticipates that any person within an air agency responsible for submitting exceptional events demonstrations or SIP revisions could also be responsible for certifying a Smoke Management Program.

⁷⁵ The EPA is adapting the language associated with the six basic components of a certifiable SMP from the 1998 *Interim Air Quality Policy on Wildland and Prescribed Fires*. Although states may have developed and implemented a certified SMP that addresses prescribed fire not on wildland, this regulatory action focuses on the elements of a certified SMP as applied to managing smoke from prescribed fires on wildland. In this context, the EPA expects burn managers to consider actions and approaches where appropriate.

manage prescribed fires on wildland within a region, state or on Indian lands and identifies a central authority responsible for implementing the program. The authorization process could, but is not required to, include burn permits or other forms of instruction for conducting burns that consider air quality and the ability of the airshed to disperse emissions.

- Minimizing Air Pollutant Emissions – Encourages wildland owners/managers to consider and evaluate alternative treatments to fire, but if fire is the selected approach to follow appropriate emission reduction techniques.
- Smoke Management Components of Burn Plans – If the smoke management program requires burn plans, then the burn plan should include the following components: actions to minimize fire emissions, approaches to evaluate smoke dispersion, public notification and exposure reduction procedures, and air quality monitoring.
- Public Education and Awareness – Establishes the criteria for issuing health advisories when necessary and procedures for notifying potentially affected populations.
- Surveillance and Enforcement – Includes procedures to ensure compliance with the terms of the SMP.
- Program Evaluation – Provides for periodic review by interested stakeholders of the SMP effectiveness and program revision as necessary. A review of effectiveness should consider the role of prescribed fire in meeting the goals in a multi-year or resource management plan with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to

preserve endangered or threatened species. Effectiveness reviews should also consider air quality impacts as well as any received post-burn reports, which may describe implemented contingency plans due to smoke impacts or use of BSMP and recommendations for future improvements. SMP procedures for re-evaluation should address a frequency of review (*e.g.*, every 3 to 5 years, or as needed); participants in the review process (*e.g.*, original program developers to include land owners/managers, air quality managers, the public, etc.); and program objectives over the review period (*e.g.*, acres burned, anticipated/desired future acres burned, needed modifications).

Table 3. Summary of Basic Smoke Management Practices, Benefit Achieved with the BSMP, and When it is Applied.^a

Basic Smoke Management Practice^b	Benefit achieved with the BSMP	When the BSMP is Applied – Before/During/After the Burn
Evaluate Smoke Dispersion Conditions	Minimize smoke impacts	Before, During, After
Monitor Effects on Air Quality	Be aware of where the smoke is going and degree it impacts air quality	Before, During, After
Record-Keeping/Maintain a Burn/Smoke Journal	Retain information about the weather, burn and smoke. If air quality problems occur, documentation helps analyze and address air regulatory issues.	Before, During, After
Communication – Public Notification	Notify neighbors and those potentially impacted by smoke, especially sensitive receptors	Before, During
Consider Emission Reduction Techniques	Reducing emissions through mechanisms such as reducing fuel loading can reduce downwind impacts	Before, During, After
Share the Airshed – Coordination of Area Burning	Coordinate multiple burns in the area to manage exposure of the public to smoke	Before, During, After

^a The EPA believes that elements of these BSMP could also be practical and beneficial to apply to wildfires for areas likely to experience recurring wildfires.

^b The listing of BSMP in this table is not intended to be all-inclusive. Not all BSMP are appropriate for all burns. Goals for applicability should retain flexibility to allow for onsite variation and site-specific conditions that can be variable on the day of the burn. Burn managers can consider other appropriate BSMP as they become available due to technological advancement or programmatic refinement.

Table 4. Elements that May Be Included in Burn Plans and Post-Burn Reports for Prescribed Fires Submitted as Exceptional Events.

Element	Burn Plan	Post-Burn Report
Fire Name ^a	Include	Include
Permit number (if appropriate)	Include	Include
Latitude/longitude and physical description	Include	Include
Date of burn, ignition time and completion time (duration of burn)	Include	Include
AQI status on burn day, if available (both in the vicinity of the fire and in the affected upwind area)	Predicted	Actual
Acres burned	Planned	Actual (blackened)
Description of fuel loading	Estimated	Actual (tons consumed)
Meteorological data (weather conditions, wind speed and direction, dispersion)	Predicted conditions (including predicted dispersion)	Actual conditions (including actual dispersion)
Smoke Impacts	Anticipated smoke impacts	Observed or reported smoke impacts (include nature, duration, spatial extent and copies of received complaints)
BSMP actions to reduce impacts	Expected BSMP actions	Actual BSMP actions
Recommendations for future burns in similar areas		Include
Analytics (modeled/actual fire spread, satellite imagery and analysis, webcam/video, PM/ozone concentrations over the course of the fire)		Include

^a The “Fire Name” should be unique and referenced, to the greatest extent possible, in all exceptional events-related documentation, including the event name in AQS. The fire name could simply consist of the county, state, and date in which the burn occurred (*e.g.*, County X, State Y Prescribed Fire on Date Z) if no other name has been assigned.

Also as proposed, and for the previously summarized reasons, we are removing the phrase “and must include consideration of development of a SMP” from the sentence that in 40 CFR 50.14(b)(3) of the 2007 Exceptional Events Rule that read, “If an exceptional event occurs using the basic smoke management practices approach, the State must undertake a review of its approach to ensure public health is being protected and must include consideration of development of a SMP.”

With respect to the not reasonably preventable prong of the not reasonably controllable or preventable criterion, after considering public comments, we are finalizing our reliance on a multi-year land or resource management plan for a wildland area with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire.

While our proposal encouraged all agencies and managers/owners involved in land, air quality and fire management to communicate and collaborate regarding fire use practices in general and plans for specific prescribed fires with use of BSMP, we did not propose to require this communication. Commenters provided both general and specific feedback related to the EPA’s encouragement of these collaborative fire communications. From a holistic perspective, commenters noted that a shared understanding regarding the goals of a specific prescribed fire helps both air quality and land managers meet their respective air quality objectives and land and resource management objectives. Some state and regional planning organization commenters also responded that it is inappropriate to allow federal land managers, who are not directly accountable for managing air quality, to independently make decisions for which air agencies are responsible. As we have noted previously in this preamble, federal land managers do play an important role in helping states and tribes improve the air quality in those areas that do not meet

the NAAQS. Regardless of whether the provisions in the General Conformity Rule⁷⁶ apply, commenters specifically asked the EPA to ensure that burn managers using BSMP consult with the air agency or air agencies within whose jurisdiction the burn is being conducted regarding the selection and use of BSMP to ensure that those BSMP are appropriate and address local air quality and public health issues. Some land managers have offered the counter-perspective that pre-burn approval on a fire-by-fire basis could consume resources from all parties and have no practical effect regarding actual measures taken before, during or after a fire. These same land managers also articulated that requiring extensive pre-burn discussions between burners and air agencies could have the unintended result of burners not using BSMP.

The EPA must balance the concerns raised by the states during the comment period on the NPRM with the concerns identified by other federal agencies with which we have consulted in the development of this action. To effect this balance, the EPA is incorporating preamble language and rule text that requires that air agencies, federal land managers and other agencies as appropriate, periodically discuss with the burn managers operating within their jurisdiction and document the process by which air agencies and land managers will work together to protect public health and manage air quality impacts during the conduct of prescribed fires on wildland. Consistent with operational protocols within the fire management community, these discussions must include outreach and education regarding general expectations for the selection and application of appropriate BSMP and goals for advancing strategies and increasing adoption and communication of the benefits of appropriate BSMP. As with other components of this final rule, we are not defining the mechanism by which air agencies and land managers will conduct and

⁷⁶ The General Conformity Rule requires that federal agencies work with state, tribal and local governments in nonattainment and maintenance areas to ensure that federal actions conform to any applicable SIP, FIP or TIP.

document these discussions nor are we prescribing the full scope of these discussions. Rather, we are finalizing regulatory text that, after an initial implementation period, the EPA will not concur with a request to exclude data that have been influenced by a prescribed fire on wildland if the air agency(ies), federal land managers and burn managers have not discussed and documented a process that includes outreach and education regarding general expectations for the selection and application of appropriate BSMP and goals for advancing strategies and increasing adoption and communication of the benefits of appropriate BSMP. The initial implementation period is defined as 2 years from the effective date of this action. This time will allow air agencies and land managers to develop and incorporate the collaboration process into operational management.

The EPA expects that the mechanism under which these discussions are conducted and documented could be formal, such as a Memorandum of Understanding or an Interagency Agreement, or it could be a letter agreement. Similarly, in indicating that discussions occur “periodically,” we mean that discussions could occur annually at the beginning of a burn season, prior to initiating burns on identified tracts of land, or on some other identified frequency. We do not expect discussions prior to each prescribed fire on wildland. The EPA also expects that discussions will include outreach and education regarding general expectations for the selection and application of appropriate BSMP and goals for advancing strategies and increasing adoption and communication of the benefits of appropriate BSMP and not the initiation or timing of the prescribed fire (except in those cases where a BSMP specifies certain factors related to the timing). Not all BSMP are appropriate for all burns. Goals for applicability should remain flexible to allow for onsite variation and site-specific conditions that can be variable on the day of the burn. Where states have an existing, documented process or program under which air

agencies, federal land managers, state fire agencies and other entities engage with burn managers regarding the protection of public health and air quality and general expectations for the selection, application and benefits of appropriate BSMP, they may rely upon and reference this process or program when addressing the not reasonably controllable or preventable criterion for an exceptional events demonstration for a prescribed fire.

Also related to air agency and land manager collaboration, we have clarified the regulatory language at 40 CFR 50.14(b)(3)(ii)(A) to require that when a NAAQS exceedance or violation occurs when a prescribed fire is employing an appropriate BSMP approach that the air agency and the burn manager conduct a retrospective review of the prescribed fire event and the employed BSMP to ensure the protection of air quality and public health and progress towards restoring and/or maintaining a sustainable and resilient wildland ecosystem. Either the air agency or the burn manager could initiate such a retrospective review. This regulatory language previously indicated that the “State must undertake a review of its approach....” The added regulatory text clarifies our intent in using the term “approach.” We are also requiring that if the prescribed fire becomes the subject of an exceptional events demonstration, the demonstration must include documentation of the post-burn review. The EPA may be unable to concur on a demonstration that does not include documentation of the post-burn review. Together, the regulatory language at 40 CFR 50.14(b)(3)(ii) now requires both proactive discussions focused on education and outreach regarding BSMP and a “lessons learned” review of events that occur with the use of BSMP. We note that this required collaborative proactive and retrospective approach does not affect any land manager’s ability to conduct a prescribed fire, only whether a prescribed fire conducted after the effective date of this action is eligible for consideration as an

exceptional event. The mandatory provisions for these required discussions do not apply where a burner is operating under a developed and implemented certified SMP.

Comments and Responses. The EPA received many comments expressing agreement with the EPA's recognition of the importance of prescribed fire on wildland and welcoming continued dialogue among state, tribal and local air agencies, the EPA and other federal agencies to ensure that land managers have adequate available tools to manage ecosystem development and restoration and manage wildland vegetation, including use of planned prescribed fires and letting some wildfires proceed naturally, and to ensure that use of these tools is protective of public health and does not result in unhealthy air. No commenters disagreed with this objective, but, as described in the following paragraphs, some commenters provided feedback regarding applying the specific aspects of prescribed fire on wildland to the exceptional events process.

Some commenters supported the proposed definition of prescribed fire, while others offered suggestions for revision. Several commenters recommended that we include within the regulatory definition the concept that prescribed fire on wildland must be conducted using either SMP or BSMP principles. While we agree that either a SMP or BSMP are required for a prescribed fire to be eligible for consideration under the Exceptional Events Rule, as indicated in this preamble and in the regulatory text at 40 CFR 50.14(b)(3)(ii)(A), we have not added either SMP or BSMP to the regulatory definition of a prescribed fire because to do so would have the effect of excluding from the definition of prescribed fire those deliberately ignited fires that do not use BSMP or SMP. That is, we would not have terminology to define intentionally ignited fires not using BSMP or SMP, which the land management community refers to as prescribed fires. We believe that promulgating a regulatory definition that is substantively different than the common usage would create confusion. Moreover, the definition of prescribed fire that we are

promulgating combined with the specific exceptional events provisions for prescribed fire on wildland (*e.g.*, the requirement that the fire must have been conducted under a SMP or have BSMP applied) will achieve the same goal as the suggested revision to the definition of prescribed fire.

Another commenter suggested that the definition of prescribed fire also include the caveat that that “applicable laws, policies, and regulations” (1) actually exist (2) are enforceable by or through delegated authority from the state air quality management entity, and (3) are intended to adequately control emissions and impacts at all downwind locations. We have not incorporated the commenter’s suggested language. Under the CAA, states, exclusive of tribal lands, are primarily responsible for the administration of air quality management programs within their borders. As the responsible entity, states promulgate laws and regulations, where needed, and ensure they are followed and are enforceable (states also develop policies, but policies are generally not enforceable). We note that in some states, legislation gives the leadership of fire management to a forestry or public safety agency rather than to an air agency. As pointed out by one commenter, the EPA cannot mandate that states grant air agencies the authority or purview to regulate or enforce public health and safety. We can, however, require coordination as a condition for the EPA’s approval for the exclusion of event-influenced ambient data, which is what we have done with the regulatory language at 40 CFR 50.14(b)(3)(ii)(A).

As previously noted, after considering public comments, we are finalizing that to satisfy the human activity unlikely to recur at a particular location criterion, the air agency may rely on either the natural fire return interval or the prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan with a stated objective to establish, restore and/or maintain a

sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire. While a few commenters agreed with the language as proposed, several commenters asked for clarification regarding recurrence and the development of land management plans. Specifically, commenters asked how the recurrence frequency identified in land management plans as being needed to achieve land management goals or defined by the natural fire return interval compares to the recurrence frequency generally established for the human activity unlikely to recur at a particular location criterion. In discussing the concept of recurrence in Section IV.E.1 of this preamble, we note that the general benchmark for recurrence (*i.e.*, three events in 3 years) does not apply to prescribed fires. Rather than using this general benchmark for prescribed fire on wildland, we are promulgating in 40 CFR 50.14(b)(3)(iii), that recurrence for prescribed fires is defined by either the natural fire return interval or the prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire. Thus, the recurrence frequency for prescribed fire is specific to the ecosystem and resource needs of the affected area. Several additional commenters requested that we codify language allowing either the natural fire cycle or the fire frequency needed to meet ecological objectives to be defined by scientific literature. We are not codifying the concept that recurrence can be defined by scientific literature, but we are including this clarification in the final rule preamble.⁷⁷ Two additional commenters asked that we clarify how an event spanning

⁷⁷ As a general matter, this preamble provides non-binding guidance and recommendations for satisfying specific rule criteria. This does not mean that these recommendations are the only way

multiple days counts towards recurrence. As we discuss in Section IV.E.1 of this preamble, the EPA recognizes that a single event, natural or caused by human activity (to include prescribed fire events), can span multiple days and result in an air agency flagging multiple monitor-day values in AQS (*i.e.*, multiple exceedances of a given NAAQS at a single monitor in a single day or multiple NAAQS exceedances at multiple monitors on multiple days). The EPA considers a single discrete event to be one occurrence.

Commenters also asked for clarification regarding the development of land and resource management plans. Specifically, commenters note that while the description and content of the plans identified in the preamble to our proposed rule may be appropriate for federal agencies, the description and content of land and resource management plans was not appropriate for private landowners who burn at the landscape level. Commenters asked that we clarify that prescribed fires undertaken by private landowners or on lands managed by multiple parties that are consistent with their management plans be considered under the exceptional events process. We disagree with the commenters on this point. The existence of identified objectives in a state or private management plan may not be sufficient under the exceptional events process. Rather, the stated objectives must include those identified in this rule. The EPA is promulgating regulatory provisions that describe the process and requirements by which emissions from prescribed fires on wildland causing an exceedance or violation of a NAAQS can be considered for exclusion under the Exceptional Events Rule. In finalizing these rule revisions, our intent is to clearly articulate the components needed to satisfy the statutory requirements under CAA section 319(b) and the Exceptional Events Rule. It is not our intent to exclude specific event types or scenarios

to address a given issue. The preamble guidance only precludes other approaches when the rule language identifies a specific condition as being necessary to satisfy a given requirement.

from consideration. Rather, the EPA will review each event on a case-by-case basis considering the merits of each specific case. We recognize that addressing the prescribed fire-related components may be more difficult in some states than others (or more difficult for some land areas within a state than other land areas within the same state) because of the state legislative authority for fire management or because of the nature and management/ownership of lands considered to be wildland. We further recognize that successfully implementing these rule revisions will require the coordination, cooperation and compromise of all involved parties, including federal, state, local, tribal, and private land owners/land managers; state, tribal and local air quality agencies; and the EPA.

Commenters provided a similar level of detailed feedback regarding the not reasonably controllable or preventable criterion. Most commenters agreed with the EPA's now final provision that, to be considered under the provisions of the Exceptional Events Rule, prescribed fires must be conducted under an adopted and implemented certified SMP or using appropriate BSMP. One commenter asked that we clarify in rule text that if a certified SMP is in place for an area, then all prescribed fires conducted in the area must first comply with the provisions in a SMP. In response to the commenter's suggestion, we note in this preamble that if a state has adopted and implemented a certified SMP, then a prescribed fire on lands included within the scope of the SMP should be conducted under the terms of the SMP. We note, however, that some SMP may allow individual burners to voluntarily adhere to the terms of the SMP. If this is the case, or in situations in which a state has developed, but not implemented, a SMP, then burn managers may use BSMP to address the provisions of the Exceptional Events Rule. States are responsible for implementing and ensuring conformance with the terms of their SMP.

Our proposal solicited comment on whether to include SMP elements in the final rule revisions as rule text. We received comments supporting retaining the SMP elements in the preamble as guidance, and we received other comments supporting including the SMP elements in regulatory language. As previously noted in this preamble, we are retaining the SMP elements in the preamble as guidance. When the SMP elements were developed for the 1998 *Interim Air Quality Policy on Wildland and Prescribed Fires*, the language reflected actions consistent with addressing three types of wildland fire (*i.e.*, wildfire, prescribed fire and wildland fire use fire). Fire terminology now recognizes two types of wildland fire: wildfire and prescribed fire. We chose not to include provisions in regulatory text that do not reflect current terminology. Additionally, in the 1998 *Interim Air Quality Policy on Wildland and Prescribed Fires*, we recommended that all state-certified SMP include the six identified elements. However, because the elements were only recommended versus being required, not all states adopted all six elements. Requiring the six SMP elements in the rule text could result in some states needing to revise their SMP. Where a state has incorporated the SMP into a SIP, the effects of including the SMP elements in the final rule text could include revising the SIP if the state intends to rely on the SMP path to address the controllable prong of the not reasonably controllable or preventable criterion. As we note in this preamble, based on commenter feedback, we have slightly modified the descriptions of some of these components. For example, several commenters noted that the authorization to burn component appears to attempt to require burn permits. We have clarified that while this component must include a process for authorizing or granting approval to manage prescribed fires on wildland, this authorization process may or may not include burn permits.⁷⁸

⁷⁸ By “burn permit,” we mean a document or communication saying that a particular party may conduct a prescribed fire in a particular area on a particular day or range of days. Acceptable

Also in response to commenter feedback, we have clarified the program evaluation component including “periodic review” by interested stakeholders of the SMP effectiveness and program revision as necessary.

Several commenters expressed support for our proposal to remove the phrase “and must include consideration of development of a SMP” from the sentence that in 40 CFR 50.14(b)(3) of the 2007 Exceptional Events Rule that read, “If an exceptional event occurs using the basic smoke management practices approach, the State must undertake a review of its approach to ensure public health is being protected and must include consideration of development of a SMP.” As we noted in the proposal, while the EPA supports states considering the development of a SMP when an event occurs while using BSMP, we believe states have had many opportunities to develop SMP since 2007. The language in the 2007 rule effectively requires an ongoing consideration to develop a SMP every time a prescribed fire causes a NAAQS exceedance or violation that merits exclusion as an exceptional event. We do not believe Congress intended this ongoing consideration to be a requirement under CAA section 319(b). We maintain that when air agencies observe NAAQS exceedances or violations attributed to a prescribed fire, air agencies should consider a wide range of alternatives including, but not limited to, the development of a SMP or more frequent or intensive use of BSMP to minimize smoke impacts. In addition, we believe that a SMP is most appropriate when multiple parties wish to employ prescribed fire at about the same time in the same airshed, which is a more

alternative approaches to burn permits include communicating more broadly where and when landowners may conduct prescribed fires. However, we do not consider a program that authorizes prescribed fire across broad areas throughout an entire season with no regard for meteorological or pollution conditions on specific days to be a SMP.

narrow situation than specified in the sentence we proposed to remove. For these reasons, as supported by commenter feedback, we are removing the language from the rule text.

Four states and one national organization agreed with our proposal to include BSMP in rule text. One national forestry association indicated its preference to include BSMP in the preamble as guidance. As noted, we are including the table identifying BSMP in regulatory text. While not in regulatory text, we are also incorporating into this final rule, as guidance in the preamble, Table 4, which includes example content in a burn report. Although one commenter asked that this table be included in regulatory text, we are not doing this because the table provides example content of a burn report, which is only a single example of the type of documentation that air agencies can use in their exceptional events demonstrations for prescribed fires to show the implementation of BSMP. It is not our intent to convey as required documentation either burn reports or the identified content.

Several commenters supported, and no commenters opposed, the presumption that a prescribed fire should be considered not reasonably preventable based on the benefits that would be foregone if the burn did not take place. As we have noted, we have incorporated this concept into the final rule preamble and finalized associated regulatory text, which allows states to rely on a multi-year land or resource management plan for a wildland area with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire to satisfy the preventability prong of the not reasonably controllable or preventable criterion.

3. Stratospheric Ozone Intrusions

The section of the proposal addressing exceedances due to stratospheric ozone intrusions did not propose any new guidance or specific regulatory language. Rather, it provided a general

(meteorological) description of stratospheric ozone intrusions, indicated that stratospheric ozone intrusions are purely natural events, and provided general guidance on applying the Exceptional Events Rule criteria when preparing demonstrations for stratospheric ozone intrusion events. Because we intend to develop a supplementary guidance document, *Draft Guidance on the Preparation of Exceptional Events Demonstrations for Stratospheric Ozone Intrusions*, which will apply the final rule provisions to the development of demonstrations for stratospheric ozone intrusion events and will include example analyses, conclusion statements and technical tools that air agencies can use in their demonstrations, we are not repeating in this final action the language that appeared as guidance in the proposal. We intend to post the draft guidance and instructions for providing public comment on the exceptional events Web site at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events> shortly after finalizing these rule revisions.

After consideration of the public comments, as discussed more fully in the paragraph that follows, we are finalizing a rule provision related to satisfying the not reasonably controllable or preventable criteria for stratospheric ozone intrusions. While the not reasonably controllable or preventable criterion applies to natural events, the EPA has stated that air agencies generally have no obligation to specifically address reasonable controls if the event was natural. We applied this concept when proposing (and, in this action, finalizing) a categorical presumption of not reasonably controllable for wildfires that would involve referencing the appropriate regulatory citation in the demonstration. The proposal preamble repeatedly acknowledges that, similar to wildfires, stratospheric ozone events are purely natural events. The proposal also stated in the not reasonably controllable or preventable section that “In these cases [volcanic releases of SO₂ and stratospheric ozone intrusions], the air agency should affirmatively state that the not

reasonably controllable or preventable criterion is satisfied by the fact that the natural event was of a character that could not have been prevented or controlled and that there were no contributions of event-related emissions from anthropogenic sources.” As a natural outgrowth of our proposal, and as specifically suggested by one commenter, we are extending this categorical presumption to satisfying the not reasonably controllable or preventable criterion to stratospheric ozone intrusion events by promulgating regulatory language at 40 CFR 50.14(b)(6).

4. High Wind Dust Events

a. Summary of Proposal

The EPA proposed as guidance in the preamble and/or as changes to regulatory text concepts and language that first appeared in the Interim High Winds Guidance document. These changes included adding regulatory definitions for high wind dust events and a high wind threshold, determining the scenarios under which a high wind dust event could be considered “natural” for purposes of the Exceptional Events Rule, identifying that remote, large-scale, high-energy and/or sudden high wind dust events, such as “haboobs,” would generally satisfy the not reasonably controllable or preventable criterion with streamlined documentation, and incorporating best management practices (*i.e.*, soil conservation management practices) as reasonable controls. We solicited comment on all of these concepts and discuss each in more detail in the following paragraphs.

Definition of an Event. Consistent with the EPA’s proposed revision of the regulatory definition of an exceptional event to include both the event and its associated resulting

emissions, the EPA proposed to define a high wind dust event as an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site. We also proposed, consistent with the nullified language in the 2007 Exceptional Events Rule preamble, the PM₁₀ Natural Events Policy and the Interim High Winds Guidance, to define high wind dust events in the rule text as “natural events” in cases where windblown dust is entirely from natural sources or where all significant anthropogenic sources of windblown dust have been reasonably controlled.

High Wind Threshold. To facilitate clearer expectations regarding the level of evidence needed to demonstrate not reasonably controllable or preventable, the EPA proposed to codify in rule language the definition of “high wind threshold” as the minimum threshold wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by a high wind dust event. The EPA proposed to accept a threshold of a sustained wind of 25 mph for areas in the western U.S. provided this value is not contradicted by evidence in the record when we reviewed a demonstration. The proposal noted that if we received specific information based on relevant studies that suggest a different high wind threshold for an identified area, the EPA would notify the affected air agency so that the agency may consider basing its demonstration on that threshold value. The proposal also indicated that the EPA would consider such information as part of the weight of evidence analysis for a submitted demonstration. As we had previously articulated in the Interim High Winds Guidance, the proposal stated that air agencies could, as an alternative to the 25 mph high wind threshold, identify and use an area-specific high wind threshold that is more representative of local/regional conditions.

The proposal explained that we would use the high wind threshold concept when assessing the not reasonably controllable or preventable criterion for all high wind dust exceptional events demonstrations except for those events in which the source of the emissions is entirely natural (*i.e.*, windblown dust from natural undisturbed lands) or where a large-scale and high-energy high wind dust event generates emissions that cause an exceedance or violation. In the case of a large-scale and high-energy high wind dust event, no assessment of reasonable controls is needed to satisfy the controllability prong of the “not reasonably controllable or preventable” criterion.

Large-Scale and High-Energy High Wind Dust Events. The EPA proposed rule language to apply a general approach when considering reasonableness of controls for remote, large-scale, high-energy and/or sudden high wind dust events, such as “haboobs” in the southwest where sustained wind speeds can exceed 40 mph and generate walls of dust several miles wide and more than a mile high. The proposed rule text provided that if an event met the criteria for a large-scale and high-energy event, then it would be considered not reasonably preventable or controllable. Therefore, a demonstration limited to such event(s) will not need to substantively address this criterion.

Best Management Practices. The EPA solicited comment on whether, as part of the assessment of local sources and reasonable controls, USDA/NRCS-approved BMPs constitute sufficient reasonable controls in any or in all high wind event-affected areas and whether these measures should therefore be specifically and categorically identified in preamble or rule language as constituting reasonable controls. The preamble repeated the EPA’s previous guidance that USDA/NRCS-approved BMPs designed to effectively reduce fugitive dust emissions and prevent soil loss in agricultural applications could be included in the collection of

controls determined to constitute reasonable controls for wind-blown dust events in areas in which they have been implemented.⁷⁹ Although the EPA has addressed the sufficiency of BMPs in decisions on individual exceptional events demonstrations when the BMPs were part of a SIP-approved BACM determination, we have not previously addressed whether or not BMPs individually or in some combination with each other constitute sufficient reasonable controls nationally or in any particular types of areas.

b. Final Rule

After consideration of the public comments received, and for the reasons discussed in our proposed rule section and response to such comments, we are finalizing regulatory language defining high wind dust events and high wind threshold; determining the scenarios under which a high wind dust event could be considered “natural” for purposes of the Exceptional Events Rule; identifying that large-scale and high-energy high wind dust events, such as “haboobs,” would generally satisfy the not reasonably controllable or preventable criterion with streamlined documentation; and providing guidance related to incorporating best management practices (*i.e.*, conservation management practices) as reasonable controls.

Definition of an Event. We are promulgating, as proposed, that a high wind dust event is an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site. No commenters opposed this definition.

⁷⁹ *Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule.* U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/exceptevents_highwinds_guide_130510.pdf and *Interim Guidance to Implement Requirements for the Treatment of Air Quality Monitoring Data Influenced by Exceptional Events.* U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/exceptevents_guidememo_130510.pdf.

Also as proposed, we are promulgating regulatory text that we consider high wind dust events as “natural events” in cases where windblown dust is solely from natural sources or where all significant anthropogenic sources of windblown dust have been reasonably controlled.⁸⁰ While we discuss this concept (and related comments and responses) in more detail in Section IV.D of this preamble, we note here that this long-standing policy was first established in the PM₁₀ Natural Events Policy, which provided that:

Ambient PM₁₀ concentrations due to dust raised by unusually high winds will be treated as due to uncontrollable natural events under the following conditions: (1) the dust originated from nonanthropogenic sources, or (2) the dust originated from anthropogenic sources controlled with best available control measures (BACM).⁸¹

High Wind Threshold. We are also promulgating, as proposed, that the definition of a high wind dust threshold is the minimum threshold wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by a high wind dust event. No commenters opposed this definition. In concert with this definition, we are also finalizing a modified version of our proposed regulatory text that we will accept a threshold of a sustained wind of 25 mph for areas in the western U.S. provided this value is not contradicted by evidence

⁸⁰ As identified in Section IV.D of this preamble, the EPA will generally consider human activity to have played little or no *direct* role in causing emissions of the dust generated by high wind for purposes of the regulatory definition of “natural event” if contributing anthropogenic sources of the dust are reasonably controlled, regardless of the amount of dust coming from these reasonably controlled anthropogenic sources, and thus the event could be considered a natural event. In such cases, the EPA believes that it would generally be a reasonable interpretation to find that the anthropogenic source had “little” direct causal role. If anthropogenic sources of windblown dust that are reasonably controllable but that did not have those reasonable controls applied at the time of the high wind event have contributed significantly to a measured concentration, the event would not be considered a natural event.

⁸¹ *Areas Affected by PM-10 Natural Events* (the PM₁₀ Natural Events Policy), memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, to the EPA Regional offices, May 30, 1996.

in the record when we review a demonstration. Several commenters supported this definition either as proposed or with the clarification that air agencies could develop as an alternative to the 25 mph high wind threshold, their own area-specific high wind threshold that is more representative of local/regional conditions. Although we included this language in the proposal preamble, we did not include this language in the proposed regulatory text. We are including this language in the final regulatory text as a result of commenter feedback.

We also repeat language from the proposal that any area-specific high wind threshold should be representative of conditions (*i.e.*, sustained wind speeds⁸²) that are capable of overwhelming reasonable controls (whether RACM, BACM or other) on anthropogenic sources and/or causing emissions from natural undisturbed areas. The threshold was not intended to represent the minimum wind speed at which *any* level of emissions could occur (*e.g.*, aerodynamic entrainment), but rather the wind speed at which significant emissions begin to occur due to reasonable controls on disturbed soil or the natural wind resistance of undisturbed areas becoming overwhelmed. We further note that we included guidance on both threshold development and determining wind speeds in the Interim High Winds Guidance.⁸³ While we believe this guidance is still appropriate with respect to determining wind speed characteristics

⁸² Section 6.3.2.2 in the *Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/exceptevents_highwinds_guide_130510.pdf for details on the calculation of sustained wind speed. Generally, the EPA will accept that high winds could be the cause of a high 24-hour average PM₁₀ or PM_{2.5} concentration if there was at least one full hour in which the hourly average wind speed was above the area-specific high wind threshold.

⁸³ See Appendices A2 and A3 in the *Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/exceptevents_highwinds_guide_130510.pdf for additional information on the development of a high wind threshold.

and developing a wind speed threshold, we intend to revise the guidance to incorporate the provisions of this final action. We note that areas with Natural Events Action Plans that include a high wind threshold that meets the criteria identified in the Interim High Winds Guidance may be able to use the previously developed threshold as an area-specific high wind threshold. The proposal also accepted information on different high wind thresholds for identified areas (*see* 80 FR 72878). After evaluating comments advocating that the EPA consider area-specific high wind thresholds, the EPA is codifying this provision in the final rule. The EPA recognizes, however, that there are likely to be limited situations in those areas in the western U.S.⁸⁴ where this threshold applies in which exceptional events occur at wind speeds less than 25 mph.⁸⁵ Air agencies should consult with their EPA Regional office when developing alternate high wind thresholds for a particular area.

The EPA will continue to consider an area's high wind threshold when reviewing demonstrations for events in a nonattainment or maintenance area where the EPA has approved a SIP, TIP or FIP within 5 years of the date of the event. For a demonstration in such a case, the not reasonably controllable criterion hinges only on implementation of the control measures in the SIP, TIP or FIP, not on the content of those measures. For events with sustained wind speeds above the high wind threshold that occur simultaneously with high monitored PM concentrations, it is very plausible that SIP, TIP or FIP controls were being implemented and the

⁸⁴ *See* rule language that we are promulgating at 40 CFR 50.14(b)(5)(iii).

⁸⁵ The default threshold of 25 mph was based on extensive windblown dust emissions research performed by the Department of Civil and Environmental Engineering at the University of Nevada, Las Vegas under contract to the Clark County Department of Air Quality and Environmental Management. *See* Appendix A1 in the *Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule*. U.S. EPA. May 2013, and *Refined PM₁₀ Aeolian Emission Factors for Native Desert and Disturbed Vacant Land Areas*. Final Report, June 30, 2006.

high PM concentrations resulted from emissions generated by sources in the area despite implementation of those controls. Conversely, for events with sustained wind speeds below the high wind threshold, it becomes more plausible that there may be noncompliance with control measures or that anthropogenic sources unrelated to the event (*e.g.*, dust from traffic for a special event) are contributing to the exceedance. Therefore, the comparison of sustained wind speeds during an event to the high wind threshold will help the EPA Regional offices determine what evidence must be included in a demonstration. Specifically, it will inform the evidence required for the not reasonably controllable or preventable criteria, the possibility of noncompliance, or emissions from non-event sources.

Similarly, the high wind threshold also aids in determining whether a high wind dust event that includes emissions from anthropogenic sources can be considered a natural event. We have clarified that natural events can recur, sometimes frequently, and that we consider reasonably controlled anthropogenic emissions sources to play little or no direct role in causing emissions. For high wind dust events, if sustained wind speeds are above the high wind threshold and the anthropogenic emissions sources are reasonably controlled, it is more likely that human activity plays little or no direct role in causing emissions. Conversely, if sustained wind speeds are below the high wind threshold it is more likely that human activity does have a direct role in causing emissions because significant emissions under low wind conditions only occur if the area has been disturbed by human activity and those sources have not been reasonably controlled.

As noted in the proposed rule preamble and in the Interim High Winds Guidance, as part of an exceptional events demonstration for high wind dust events, the EPA expects air agencies to provide relevant wind data (*e.g.*, wind speed and direction). Wind speed data consist of

analyses and statistics showing how the observed sustained wind speed compares to the established high wind threshold and demonstrates a relationship between the sustained wind speeds and measured PM concentrations at a particular monitoring location. The EPA has recommended that air agencies show these analyses as part of the clear causal relationship criterion discussed in Section IV.E.3 of this preamble. The EPA has encouraged air agencies to discuss wind direction in the narrative and to present wind direction data graphically in maps/plots in the clear causal relationship section of the high wind dust events demonstration.

The EPA will review any demonstration for a high wind dust event not meeting the criteria for a “large-scale and high-energy” described in the next paragraph on a case-by-case basis. In doing so, the EPA will consider what controls are reasonable in light of an area’s attainment status and associated CAA control requirements, the frequency, and range of typical high wind dust events known (at the time of the particular event that is the subject of the demonstration) to occur in the area.

Large-Scale and High-Energy High Wind Dust Events. Many commenters supported the EPA’s proposed rule language to apply a case-specific approach when considering reasonableness of controls for remote, large-scale, high-energy and/or sudden high wind dust events, such as “haboobs,” where sustained wind speeds can exceed 40 mph and generate walls of dust several miles wide and more than a mile high. As a result, we are finalizing this provision with several clarifying changes to the proposed language at 40 CFR 50.14(b)(5)(vi), which read, “For remote, large-scale, high-energy and/or sudden high wind dust events, such as “haboobs” in the southwest, the Administrator will generally consider a demonstration documenting the nature and extent of the event to be sufficient with respect to the not reasonably controllable criterion of paragraph (c)(3)(iv)(D) of this section.” We have changed this terminology to “a large-scale and

high-energy high wind dust event.” We have removed the phrase “such as haboobs in the southwest” as a result of commenter feedback identifying that “haboobs” occur in places other than the “southwest.” We agree with the commenter. We removed the descriptive terms “remote” and “sudden” because we found that these words do not effectively change the characteristics of the type of event that we intend to include as “a large-scale and high-energy” high wind dust event. Thus, provided the event meets the identified criteria for a “large-scale and high-energy” high wind dust event, it could qualify for case-specific treatment with respect to the not reasonably controllable or preventable criterion.

Some areas of the country may claim that, because of local topography and meteorology, each PM exceedance that occurs in their jurisdiction would qualify as a “large-scale and high-energy” high wind dust event. While we acknowledge that large-scale and high-energy high wind dust events in a particular area may be associated with meteorological conditions unique to that area, we also believe that to qualify for the specific exclusion at 40 CFR 50.14(b)(5)(vi), a large-scale and high-energy high wind dust event must: be associated with a dust storm,⁸⁶ have sustained wind speeds greater than or equal to 40 mph, have reduced visibility equal to or less than 0.5 miles,⁸⁷ be the focus of a “Dust Storm Warning” issued by the NWS (or a similar scientifically-based government entity) and include NWS (or a similar scientifically-based government entity) observations of dust storms and blowing dust. In addition, the event must be associated with measured exceedances occurring at multiple monitoring sites over a large

⁸⁶ The NWS defines a dust storm as a severe weather condition characterized by strong winds and dust-filled air over an extensive area. *See* definition at <http://w1.weather.gov/glossary/>.

⁸⁷ Many NWS distributed alerts and advisories include visibility estimates. In addition, many airports provide estimates of surface visibility. Air agencies may also be able to use nephelometers to determine visibility.

geographic area unless the area has only a single PM monitor or if the area has monitors operating on a sampling frequency that does not coincide with the timing of the event.

Best Management Practices. After consideration of the public comments, as discussed more fully in this paragraph, we are finalizing here as guidance that, on a source or area-specific basis, we would accept as “reasonable controls” for purposes of satisfying the not reasonably controllable or preventable criterion for a particular potentially contributing source, those USDA/NRCS-approved BMPs designed to effectively reduce fugitive dust air emissions and prevent soil loss in agricultural applications in cases where these measures have been incorporated into an EPA-approved SIP, FIP or TIP or incorporated into state laws, regulations or local ordinances and where those measures consist of controls specific to the pollutant and potentially contributing source.

As we discuss in Section IV.E.2.b of this preamble, when addressing the not reasonably controllable or preventable criterion within an exceptional events demonstration, air agencies should: (1) identify the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources, (2) identify the relevant, enforceable control measures in place for these sources and the implementation status of these controls, and (3) provide evidence of effective implementation and enforcement of reasonable controls, if applicable. For example, applying this approach to farm- and operation-specific BMPs for a high wind dust event that occurs during harvest time, an air agency would identify the potentially contributing agricultural source (*e.g.*, harvesting operations of crop X), identify the relevant BMP (*e.g.*, baling, which reduced PM emissions from residue burning and chopping) and provide evidence of penetration, scale and intensity (*e.g.*, baling applied at X of Y acres).

c. Comments and Responses

We noted in the final rule portion of the High Winds Dust Events section of this preamble that we did not receive comments related to the definition of either high wind dust event or high wind threshold. We further noted in the previous discussion that commenters did provide feedback regarding establishing, in rule, a high wind threshold of 25 mph. Several commenters supported this definition either as proposed or with the clarification that air agencies could develop as an alternative to the 25 mph high wind threshold, their own area-specific high wind threshold that is more representative of local/regional conditions. As already indicated, we have included this clarification in the regulatory text. Several of the commenters suggesting this revision also asked that the regulatory language include a provision that exceptional events can still occur at wind speeds less than 25 mph. We have not included this change as we believe that allowing areas to establish their own threshold will largely address this potential issue. Additionally, as stated in the proposal and in this final action, the EPA will review other events on a case-by-case basis considering the merits of each specific case. Still more commenters recommended keeping the high wind threshold as guidance rather than rule as it is “overly restrictive.” The EPA believes these revisions provide sufficient additional flexibility to address this concern.

Another commenter asked that we include in this final action language from our Interim High Winds Guidance, which stated “high winds could be the cause of a high 24-hour average PM_{10} or $PM_{2.5}$ concentration if there was at least one full hour in which the hourly average wind speed was above the area-specific high wind threshold.” We still believe this is an accurate statement, and we are noting this point in this final action.

As we noted previously, many commenters supported the EPA’s proposed rule language to apply a case-specific approach when considering reasonableness of controls for large-scale and high-energy high wind dust events, such as “haboobs.” Another commenter noted that haboobs should not have special treatment under the rule revisions. This same commenter asked that we define large-scale and high-energy events, which we have done in the discussion of the final rule. Regarding special treatment of these types of events, we maintain that some events are of a scale and intensity that they would have overwhelmed all reasonable controls and other efforts to minimize wind-blown dust emissions. We maintain that such events warrant different treatment under the Exceptional Events Rule. We do, however, note that air agencies will need to provide evidence that the claimed event satisfied all of the other Exceptional Events Rule criteria.

We have incorporated relevant commenter feedback regarding BMP into our discussion of BMP in the final rule section of this action. We note that one additional commenter asked that we clarify whether the fugitive dust control plans included in approved air quality permits are or can represent reasonable controls for permitted sources. While we are not addressing this comment here, we note that we discuss the relationship between BACM or fugitive dust control plans and reasonable controls in our comments and responses section of the not reasonably controllable or preventable portion of this final action (*see* Section IV.E.2.c of this preamble).

G. Other Aspects of Identifying Exceptional Events-Influenced Data and Demonstration

Submittal and Review

This portion of the proposed rule discussed the eight topics identified in the following sections, as well as a ninth topic addressing who may submit a demonstration for data exclusion. Because we identify, discuss and respond to questions regarding those entities that are allowed to

submit a demonstration in Section IV.A of this preamble and because the proposal contained no additional items needing clarification, we omit that topic in this part of the final action.

1. Aggregation of Events

a. Summary of Proposal

The EPA proposed and solicited comment on guidance in the preamble and rule text allowing 24-hour concentrations of any NAAQS pollutant to be compared to a NAAQS level defined for a longer period as part of a weight of evidence showing for the clear causal relationship with respect to the NAAQS with the longer period and the NAAQS with the shorter period. This proposed approach allowed for examining one day at a time. For example, if an event were demonstrated to have caused a 24-hour concentration of SO₂ to exceed the level of the annual SO₂ NAAQS, the air agency and the EPA would consider this to be a demonstration that the event caused an “exceedance or violation” with respect to the 24-hour NAAQS and the annual NAAQS. This would avoid the need to determine if the 1-day effect of the event was enough to cause the annual average concentration of SO₂ to exceed the level of the annual SO₂ NAAQS. It would also allow the data from a day to be excluded from calculation of the design value for the 24-hour SO₂ NAAQS even if the event did not cause an exceedance of the level of the 24-hour SO₂ NAAQS. However, such exclusion would be unlikely to be material to compliance with the 24-hour SO₂ NAAQS if there was no such exceedance of the level of the 24-hour SO₂ NAAQS.

The EPA also proposed to allow air agencies to aggregate either similar or dissimilar events (*e.g.*, stratospheric ozone intrusion followed by a wildfire or two distinct wildfires) that influence the same NAAQS but that occur on different days for the purpose of determining whether their collective effect has caused an exceedance or violation. The proposed event

aggregation process would apply only for NAAQS with averaging or cumulative periods longer than 24 hours. Although we proposed this approach to event aggregation, we also indicated that it may be difficult to implement if the effects of the individual events on their individual days are not fully quantified. We proposed rule text and solicited comment on this approach.

b. Final Rule

After consideration of the public comments, as discussed more fully in the subsequent section, we are finalizing, as proposed and as supported by several commenters, rule language that will allow an air agency to compare a 24-hour concentration of any NAAQS pollutant to the NAAQS for the same pollutant with a longer averaging period as part of a weight of evidence showing for the clear causal relationship with respect to the NAAQS with the longer period. As we discussed in the proposal, the EPA's AQS database houses ambient air quality monitoring and related data. The data in AQS are maintained as individual reported measurements, which can range from 5-minute maximum concentrations per hour for SO₂, to hourly data for ozone, CO, NO₂, SO₂ and some PM measurements, to 24-hour measurements for lead and other PM measurements. Under the 2007 Exceptional Events Rule, air agencies identify individual measurements in AQS and compare these measurements to the subject NAAQS to determine whether an exceedance or violation occurred. When the averaging period for the NAAQS is the same as the measurement duration period, this comparison is relatively straightforward. For example, air agencies and the EPA can directly compare 1-hour ozone, 1-hour CO, 1-hour SO₂, and 1-hour NO₂ measurements to the respective 1-hour NAAQS. This comparison becomes more complicated, however, when there is a difference between the pollutant measurement duration and the averaging time of the NAAQS, which is the case when comparing a 1-hour measurement to an 8-hour, 24-hour, 3-month or annual NAAQS (or in the case of 1-hour ozone,

the previously existing NAAQS, which may still apply in certain areas). The provision that we are finalizing allows an air agency to compare a 24-hour concentration of any NAAQS pollutant to the NAAQS for the same pollutant with a longer averaging period as part of the clear causal relationship showing. Using Table Q30-2 in the Interim Q&A document⁸⁸ as a guide, this rule revision will allow an air agency to compare a 24-hour averaging period for PM_{2.5} to either the 24-hour PM_{2.5} NAAQS or the annual NAAQS. (Note: if air agencies desire to exclude the identified concentration for both the 24-hour and the annual PM_{2.5} NAAQS, they need to specifically request exclusion for both NAAQS, assuming regulatory significance for both standards.) Air agencies could also compare a 24-hour lead measurement to the rolling 3-month averaging period. A number of commenters supported the provision as proposed. One commenter, however, indicated that comparing a 24-hour concentration of any NAAQS pollutant to the NAAQS for the same pollutant with a longer averaging period is an “apples to oranges” analysis that could increase uncertainty and decrease the quality of the demonstration. The EPA acknowledges the commenter’s perspective, but believes that clarification is needed regarding the comparison of measured concentrations to ambient air quality standards because, as we have explained, the measurement time frames do not often agree with the averaging period of the NAAQS. In preparing demonstrations, air agencies have often asked the EPA Regional offices whether such comparisons are allowed under the Exceptional Events Rule, and, if they are, how to present such comparisons in a demonstration. Our preamble discussion about these comparisons and our promulgation of associated rule language responds to these comments and provides clarity. We also note that the 2007 rule preamble discussed and allowed this type of

⁸⁸ *Interim Exceptional Events Rule Frequently Asked Questions*. U.S. EPA. May 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/er_qa_doc_5-10-13_r3.pdf.

comparison for the specific case of the PM_{2.5} annual NAAQS and the 24-hour PM_{2.5} NAAQS.

We are extending this concept to all similar NAAQS comparisons.⁸⁹

We are also finalizing regulatory language allowing air agencies to aggregate either similar or dissimilar events (*e.g.*, stratospheric ozone intrusion followed by a wildfire or two distinct wildfires) that influence the same NAAQS but that occur on different days for the purpose of determining whether their collective effect has caused an exceedance or violation of a NAAQS with an averaging or cumulative period longer than 24 hours.⁹⁰ That is, when considered individually, each event would not separately need to result in an exceedance or violation of a given NAAQS. The collective effect of the aggregated events would, however, need to cause an exceedance or violation of a NAAQS with an averaging or cumulative period longer than 24 hours. Also, as part of this aggregation approach, the air agency must show that each identified event separately satisfies each of the three technical rule criteria (*i.e.*, human activity/natural event, not reasonably controllable or preventable, and clear causal relationship). For the clear causal relationship showing, the air agency would need to definitively show that each discrete event contributed to the elevated concentrations and that, together, the cumulative effect of the events caused the exceedance or violation of a NAAQS with an averaging or cumulative period longer than 24 hours. We do not intend our approach for event aggregation to allow for the aggregation of unnamed events or events that occur over the course of an extended timeframe. Two commenters urged the EPA to remain silent on this provision and not include it in rule language, while several other state, local, tribal and association commenters supported the

⁸⁹ 72 FR 13570 (March 22, 2007).

⁹⁰ See 80 FR 72882, which proposed allowing event aggregation occurring on different days for NAAQS with averaging or cumulative periods longer than 24 hours. It is not appropriate to aggregate the effects of events occurring over more than a 24-hour period to a standard that is less than or equal to 24 hours.

provision as proposed. To clarify, the final rule text also includes a statement that air agencies may aggregate events occurring on the same day and compare the cumulative effects to a NAAQS with an averaging period of 24 hours or less. As previously noted, for the clear causal relationship showing, the air agency would need to definitively show that each discrete event contributed to the elevated concentrations and that, together, the cumulative effect of the events caused the exceedance or violation of the NAAQS and that each identified event separately satisfies each of the three technical rule criteria (*i.e.*, human activity/natural event, not reasonably controllable or preventable, and clear causal relationship).

We provide a specific approach to aggregating wildfire-related events that occur in different locations *on the same day* in the Wildfire Guidance, which we are releasing concurrently with this action. The aggregation methodology in the Wildfire Guidance applies for purposes of determining whether a given wildfire could use a tiered approach to satisfy the clear causal relationship criterion in a demonstration for an ozone standard (*i.e.*, either a 1-hour or an 8-hour standard). The current ozone NAAQS do not meet the pre-conditions for the aggregation approach discussed here, which requires the averaging or cumulative period of the standard to be longer than 24 hours. Additionally, use of the aggregation approach in the Wildfire Guidance would occur only *after* an exceedance or violation of the relevant ozone NAAQS versus the aggregation approach that we are finalizing in rule text that would allow aggregation to determine whether an exceedance or violation occurred. For these reasons, the regulatory approach to aggregation and the specific approach for wildfires that may influence ozone concentrations cannot be interchanged.

c. Comments and Responses

We address any additional comments received on this topic in the Response to Comments document found in the docket for this action.

2. Demonstrations with Respect to Multiple NAAQS for the Same Pollutant

a. Summary of Proposal

The proposal solicited comment on whether a successful demonstration with respect to any NAAQS for a given pollutant would suffice to qualify the data in question for exclusion with respect to all NAAQS for that pollutant. For example, the “approved for one NAAQS approved for all NAAQS for the same pollutant” concept would have allowed an air agency to prepare a demonstration for a 1-hour NAAQS and, if concurred, exclude data for both a 1-hour and an 8-hour NAAQS for the same pollutant.

b. Final Rule

Several commenters supported promulgating rule text for the proposed concept that a successful demonstration with respect to any NAAQS for a given pollutant would suffice to qualify the data in question for exclusion with respect to all NAAQS for that pollutant, but one commenter noted that this pathway is unlawful and would allow air agencies an easier path to exclude unfavorable data. After considering the feedback, we are retaining our current approach to excluding data on a NAAQS-specific basis with the previously identified clarifications for certain measurements and certain NAAQS. CAA section 319(b)(3)(B)(ii) refers to “the measured exceedances of *a* national ambient air quality standard” (emphasis added); CAA section 319(b)(3)(B)(iv) references excluding data from use in determinations with respect to “exceedances or violations of the national ambient air quality standards.” These passages do not clearly say that the EPA must or may allow data to be excluded for the purposes of all NAAQS for a given pollutant if the conditions for exclusion are satisfied for one of the NAAQS but not

all of them. Even assuming *arguendo* that that the passages permit the EPA to allow such exclusions, we believe that we would be undermining the public health and welfare purpose of the NAAQS if we were to allow such broad exclusion. One public commenter provided a cogent statement of this fact. The CAA also directs that protection of public health is the highest priority. The commenters in favor of broad exclusion did not provide a legal or public health protection basis for their recommendations. Therefore, neither the final rule nor the preamble to the final rule includes language or guidance for the proposed “approved for one NAAQS approved for all NAAQS for the same pollutant” concept.

c. Comments and Responses

We address any additional comments received on this topic in the Response to Comments document found in the docket for this action.

3. Exclusion of Entire 24-hour Value Versus Partial Adjustment of the 24-hour Value for Particulate Matter

a. Summary of Proposal

Citing Question 29 of the Interim Q&A document, the proposal articulated the EPA’s current recommendation that air agencies preparing demonstrations to support requests to exclude PM_{2.5} and PM₁₀ data obtained via monitor instruments that provide 1-hour measurements should flag all 24 1-hour values within a given event-affected day and consider the effect of the event on the 24-hour average concentration, even if the event did not last all these hours. If concurred upon, flagging all 1-hour values and considering the effect of the event on the 24-hour average concentration relative to the level of the 24-hour NAAQS ultimately results in the same available remaining data for regulatory analysis and calculation as would be the case had the 24-hour PM_{2.5} or PM₁₀ measurement data been collected from filter-based (24-hour) monitoring

instruments.⁹¹ We further recommended that flagging all 24 1-hour values is appropriate because flagging only peak or selected hours could result in the remaining 1-hour values still meeting the data completeness requirements, even though there may be very few remaining 1-hour measurements, because flagged and excluded data do not count against completeness even though they cannot be used in calculating an average concentration for a 24-hour period. Under the rules for data interpretation, exclusion of only the event-affected 1-hour concentrations could result in AQS calculating a seemingly valid 24-hour concentration that is actually highly uncertain because it is based on only a few hours and thus may be biased relative to the actual 24-hour concentration or the 24-hour concentration that would have existed in the absence of the event.⁹² The proposal solicited comment on codifying this approach in rule text to eliminate any regulatory uncertainty.

⁹¹ Filter based instruments typically record a single value within a 24-hour period while continuous monitors typically collect 24 1-hour measurements. Because AQS can calculate a valid 24-hour average concentration with as few as 18 hours, it may be necessary to exclude hours not actually affected by the event to ensure the same data exclusion outcome as if the measurement had been made with a 24-hour filter.

⁹² The form of the 24-hour PM_{2.5} NAAQS of 35 µg/m³ is 98th percentile averaged over 3 years. The form of the primary annual PM_{2.5} NAAQS of 12 µg/m³ is an annual mean averaged over 3 years. The form of the 24-hour PM₁₀ NAAQS of 150 µg/m³ is not to be exceeded more than once per year on average over 3 years. Biased concentrations can potentially skew the determination of the 98th percentile and/or the annual mean for PM_{2.5} and the averages for PM_{2.5} or PM₁₀ calculated to determine compliance with the relevant NAAQS.

b. Final Rule

After considering the public comments we received, and for the reasons discussed in our proposed rule section, we are finalizing regulatory language, supported by a number of commenters, to exclude all 24 1-hour values within a given event-affected day for PM_{2.5} and PM₁₀ data obtained via monitor instruments that provide 1-hour measurements. We believe that the exclusion of all hours in a given event-affected day is appropriate, consistent with the approach for filter based analyzers, and will eliminate the calculation of uncertain and potentially biased daily values for PM_{2.5} and PM₁₀ NAAQS. We also agree with three commenters who suggested that the EPA modify the programming in AQS to automatically flag all remaining hourly values in the 24-hour period if an air agency flags only the event-influenced hours within AQS. The EPA will program the identified changes within AQS.

c. Comments and Responses

We address any additional comments received on this topic in the Response to Comments document found in the docket for this action.

4. Flagging of Data

a. Summary of Proposal

The EPA proposed to revise the “general” schedule language contained within 40 CFR 50.14(c)(2) by removing the timelines associated with initial event flagging. We also proposed to modify the associated data flagging process within AQS to correspond with the proposed

regulatory changes.⁹³ Specifically, the revisions proposed to modify the flagging of exceptional event data by defining “flagging” as the application of the one- or two-character event type and event description text as described in the following paragraph, along with a concurrent or subsequent request for data exclusion communicated to the EPA through the Initial Notification of Potential Exceptional Event process.

The proposal noted that because the flagging of data necessarily begins with the identification of an event, the EPA proposed to retain, with modifications, the AQS free-form text field for an initial event description. As is currently the practice, we would request that air agencies use the “initial event description” to identify a unique, real-world event. We proposed to expand this “initial event description” to contain a unique event name; the type of the event (*e.g.*, high wind dust, volcanic eruption, other); a brief description of the event; and, to the extent known, the scope of the event in terms of geography and time (*e.g.*, likely affected area using latitude and longitude and a radius of influence and beginning day/time and ending day/time).⁹⁴ We proposed to simplify the process in AQS to allow the air agency to associate specific AQS sites and potentially affected monitors and specific data points with a given event as so described. We noted that this would enable air agencies and the EPA to “flag” or add qualifier codes to selected data in a single step rather than adding this information or the necessary codes on a per entry basis. Historically, when events have influenced the concentrations at multiple

⁹³ “Flag” is the common terminology for a data qualifier code in the EPA’s AQS. Unless explicitly noted, the process of “flagging” data refers to adding Request Exclusion (*R*) data qualifier codes (*R* flags) to selected data in AQS. *R* flags are the only AQS flags that satisfy the 2007 Exceptional Events Rule requirement for initial data flagging. The current design of the AQS software is such that the EPA can act/concur only on an *R* flag.

⁹⁴ The EPA is proposing that air agencies select the “type of event” from a pre-set list of event types, which would likely consist of those event types currently identified by existing Informational and *R* flags within AQS.

monitors for multiple days, the air agency has added initial event descriptions and set flags on each monitored concentration, sometimes resulting in hundreds of identical individual entries. The proposal noted that “associating” monitors with an event defined in time and space will save resources.

The proposal noted that the process of requesting exclusion for identified data would consist of two discrete operations: (1) indicating in a separate communication to the EPA that specific ambient air quality measurements are affected by a defined event (*see* Section IV.G.5 of this preamble related to Initial Notification of Potential Exceptional Event), and (2) requesting that these identified ambient air quality measurements be excluded from regulatory actions according to the Exceptional Events Rule and/or the EPA’s guidance for other applications of air quality data. The proposal indicated that AQS would retain a field to allow the EPA to concur or not concur with a given request for exclusion for one or more of the data points associated with a described event, once review of the air agency’s request and demonstration is completed.

As noted previously, we proposed to remove the “general” flagging schedule in 40 CFR 50.14(c)(2)(iii), which requires that air agencies submit *R* flags and an initial description of the event by July 1 of the calendar year following the year in which the flagged measurement occurred or by the other deadlines identified with individual NAAQS. The proposal noted that an air agency may not know that data influenced by an exceptional event caused a violation of a NAAQS until after the initial event flagging deadline has passed. We proposed to remove the current language at 40 CFR 50.14(c)(2)(iii) and reserve that section number.

b. Final Rule

As proposed, and as supported by numerous commenters, we are removing the “general” flagging schedule in 40 CFR 50.14(c)(2)(iii), which requires that air agencies submit request

exclusion flags and an initial description of the event by July 1 of the calendar year following the year in which the flagged measurement occurred or by the other deadlines identified with individual NAAQS. We are making this change because flagging data by the previously indicated deadlines can be difficult in the case of an annual standard where an air agency needs all 12 months of data to calculate an annual average and then needs 3 years of annual averages to identify whether or not the event-influenced data results in a violation of a 3-year design value. An air agency may not know that data influenced by an exceptional event caused the design value to become a NAAQS violation until 3 years after the event occurred. No commenters disagreed with this proposal.

One commenter requested that AQS retain the ability to incorporate informational flags in the data identification process. This commenter noted that informational flagging has uses beyond the exceptional events process. We are retaining informational flags in AQS.

c. Comments and Responses

We address any additional comments received on this topic in the Response to Comments document found in the docket for this action.

5. Initial Notification of Potential Exceptional Event

a. Summary of Proposal

As part of the best practices for communications⁹⁵ during the exceptional events process and to aid all agencies in resource planning and prioritization, the EPA proposed that air agencies

⁹⁵ Between September 2014 and March 2015 the EPA held conference calls with some air agencies to ask about exceptional events implementation concerns and to better understand currently employed exceptional events implementation processes and practices. As a result of these discussions, the EPA developed a list of best practices for communication and collaboration between the EPA and air agencies, a summary of which is available at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events>.

and the EPA engage in regular communications to identify those data that have been potentially influenced by an exceptional event, to determine whether the identified data affect a regulatory determination, and to discuss whether an air agency should develop and submit an exceptional events demonstration. The proposal indicated that most of these discussions would be between individual air agencies and the reviewing EPA Regional office, but some discussions could involve a group discussion between the EPA Regional office and all air agencies in the region followed by individual discussions, as needed. In still other cases, such as where large events cross state lines and when two or more states are pursuing exclusion for the same event(s), the EPA region or regions may initiate discussions with all potentially affected states/agencies to assist in coordinating states affected by regional events.

The EPA referred to these communications as the “Initial Notification of Potential Exceptional Event” (Initial Notification) process and described the purpose of the Initial Notification process as initiating conversations between an air agency and the EPA if not already on-going, or engaging in more detailed discussions if a process is currently in place, regarding specific data and whether the identified data are ripe for submittal as exceptional events. As stakeholders have repeatedly expressed and as the EPA acknowledges, the identification of data affected by exceptional events and the subsequent preparation, submittal and review of demonstrations is a resource intensive process both for the preparing air agency and the reviewing EPA Regional office.

The proposal also noted that if these data do not have regulatory significance, then engaging in the development and review of an exceptional events demonstration is generally not an efficient use of an air agency’s or the EPA’s limited resources. As described in the proposal, the Initial Notification process would focus efforts on the relevant data and provide the EPA with

the opportunity to convey to the affected air agency our initial thoughts regarding the identified event and analyses that may or may not be appropriate for inclusion in a demonstration, and, with respect to regulatory significance, which demonstrations the EPA will consider for review.

The proposal indicated that the Initial Notification could include any form of communication (*e.g.*, letter, email, in-person meeting with an attendees list and discussion summary or phone conversation with follow-up email) that ultimately identifies the potential need to develop an exceptional events demonstration and communicates key information related to the data identified for potential exclusion. Where an air agency independently identifies event-affected data and the need to submit an exceptional events demonstration outside of its regular, on-going communications with the EPA Regional office, the air agency could prepare a letter or email communicating its Initial Notification. Generally, the EPA anticipates that air agencies would develop and provide an Initial Notification as soon as the agency identifies event-influenced data that potentially influence a regulatory decision or when an agency wants the EPA's input on whether or not to prepare a demonstration.⁹⁶ The EPA further proposed that each Initial Notification would include the following components:

- *Unique event name (field in AQS)* – facilitates future communication and understanding between the submitting air agency and the reviewing EPA Regional office, particularly if an air agency has submitted multiple exceptional events demonstrations.

⁹⁶ The EPA recognizes that air agencies can immediately identify those events that result in an exceedance of a NAAQS with a short averaging time (*e.g.*, 1-hour, 8-hour or 24-hour standards) but may need additional time for an annual average standard. An air agency could also submit an annual Initial Notification if annual submittal makes sense for resource planning or for recurring seasonal events.

- *Initial event description (field in AQS)* – provides a brief narrative of the event that could also include maps or graphs similar to what an air agency might include in the narrative conceptual model discussed in Section IV.G.6 of this preamble; the event description would include a qualitative description of the event and, at a minimum, briefly describe the air agency’s current understanding of interaction of emissions with the event, transport and meteorology (*e.g.*, wind patterns such as strength, convergence, subsidence, recirculation) and pollutant formation in the area.
- *Affected regulatory decision* – provides a description of the regulatory action or actions potentially affected by the claimed event-influenced data and the anticipated timing of this action.
- *Proposed target date for demonstration submittal* – identifies the proposed target date by which the air agency would submit a demonstration to the reviewing EPA Regional office.
- *Most recent design value including and excluding the event-affected data* – the air agency’s assessment of the most recent design value both with and without the identified event(s) is helpful when assessing regulatory significance. The EPA cannot accurately calculate this value (and therefore may not be able to determine significance) if the air agency has flagged more data than it intends to include in an exceptional events demonstration.

- *Information specific to each monitored day – see Table 5 for an example of the type of table that could be used, which would be developed by the submitting air agency and generated from the initial event description in AQS (see discussion in Section IV.G.4 of this preamble).*

Table 5. Initial Notification Information Specific to Each Monitored Day

Agency/ Planning Area	State	County	Event Name in AQS	Type of Event	NAAQS	Monitor AQS ID and Site Name	Date(s) of Event	Monitor Exceedance Concentration

The proposal indicated that, after one or more informal phone discussions with the air agency, the EPA would acknowledge an air agency’s Initial Notification and then formally respond within 90 days of receipt of the Initial Notification via letter, email or in-person meeting with an attendees list and discussion summary. The response would provide the EPA Regional office’s best assessment of the priority⁹⁷ that can be given to the submission once received, any case-specific advice the EPA may have to offer for the preparation of the demonstration, and the target date for demonstration submittal. Where the data are to be used in initial area designations, the EPA proposed to rely on the documentation submission schedule that, at the time of the proposal, appeared as Table 1 at 40 CFR 50.14(c)(2)(vi).⁹⁸ Where the data would influence another near-term regulatory decision, the EPA proposed to rely on the case-by-case timelines by

⁹⁷ “Priority” refers to those exceptional events determinations that affect near-term regulatory decisions. “Regulatory decisions” include findings as to whether the area has met the applicable NAAQS, classification determinations, attainment demonstrations (including clean data findings), attainment date extensions, findings of SIP inadequacy and other actions on a case-by-case basis determined to have regulatory significance. *See* discussion in Section IV.B of this preamble for additional detail.

⁹⁸ This table appears as Table 2 at 40 CFR 50.14(c)(2)(vi) in the Exceptional Events Rule revisions that we are promulgating in this action.

which the air agency should submit the demonstration. For case-by-case demonstrations, the EPA's recommended date for demonstration submittal would consider the nature of the event and the anticipated timing of the regulatory decision, and would allow time for both an air agency's preparation of the demonstration and the EPA's review. Additionally, the EPA would request in its response that, if the submitting air agency has not already identified the affected data within AQS, that it undertake this effort according to the process described in Section IV.G.4 of this preamble. If the data identified in the Initial Notification do not have regulatory significance as discussed in Section IV.B of this preamble, then the EPA would indicate this in its correspondence back to the air agency and would discourage the air agency from devoting resources to developing a demonstration because the EPA would likely not review or act upon the submittal.

The proposal further noted that if the EPA has acknowledged as part of the Initial Notification process that identified data have regulatory significance (or some other compelling reason for excluding data), then the air agency should proceed with the development of a technical demonstration that satisfies the requirements in 40 CFR 50.14 and accounts for any case-specific advice from the EPA and additional information in the EPA's guidance documents.⁹⁹ The proposal specified that although air agencies could submit demonstrations for events that do not affect a regulatory action, the EPA would likely not review or act on such submittals.

⁹⁹ *Interim Guidance to Implement Requirements for the Treatment of Air Quality Monitoring Data Influenced by Exceptional Events*. Memorandum from Stephen D. Page, U.S. EPA Office of Air Quality Planning and Standards, to Regional Air Directors, Regions I-X. May 10, 2013. Available at http://www2.epa.gov/sites/production/files/2015-05/documents/exceptevents_guidememo_130510.pdf.

To support the previously summarized process, the EPA proposed to revise the language in 40 CFR 50.14(c)(2)(i) as follows: “A State shall notify the [EPA] of its intent to request exclusion of one or more measured exceedances of an applicable national ambient air quality standard as being due to an exceptional event by creating an initial event description and flagging the associated data that have been submitted to the AQS database and by engaging in the Initial Notification of Potential Exceptional Event process....” The EPA solicited comment on the proposed rule text revision (in 40 CFR 50.14(c)(2)) to require an Initial Notification of Potential Exceptional Event, with a provision that the EPA could waive the Initial Notification requirement on a case-by-case basis. We also solicited comment on making the Initial Notification of Potential Exceptional Event a voluntary process.

The proposal also included the associated revisions to rule text at (ii): “The data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until, following the State’s submittal of its demonstration pursuant to paragraph (c)(3) of this section and the Administrator’s review, the Administrator notifies the State of its concurrence by placing a concurrence flag in the appropriate field for the data record in the AQS database.”

b. Final Rule

In response to our solicitation for comment, several commenters indicated their desire for a voluntary Initial Notification of Exceptional Event process, while others indicated their desire that the Initial Notification process be promulgated in rule text as a requirement. To provide more regulatory certainty for all involved parties, we are finalizing the Initial Notification process as proposed, which includes a requirement for air agencies to engage in communications with the EPA once they identify a potential event; for air agencies to flag data within AQS, if

appropriate; for the EPA to identify a demonstration submittal date that considers the nature of the event and the anticipated timing of the regulatory decision that may be affected by the exclusion of the flagged data; and an option for the appropriate EPA official to waive the Initial Notification process.¹⁰⁰ We also intend to formally respond (via email or letter) to an air agency's Initial Notification within 60 days of receipt of the Initial Notification.¹⁰¹ We discuss the EPA's response timeframes in more detail in Section IV.G.7 of this preamble.

When the EPA promulgated the revised ozone NAAQS in 2015,¹⁰² we revised the flagging, initial event description and demonstration submittal deadlines for data influenced by exceptional events for use in the initial area designations process. We did not propose any changes to this schedule as part of the proposed revisions to the Exceptional Events Rule. However, because we are finalizing the Initial Notification process in this action, which includes a requirement for air agencies to flag data within AQS, if appropriate, and characterize the identified event, we are revising the "flagging and initial event description" language in Table 2 to 40 CFR 50.14 that we promulgated with the ozone NAAQS to read "Initial Notification." We are not changing the schedules for event-influenced data that may affect decisions associated with the initial area designations process.

¹⁰⁰ As discussed in Section IV.A.2 of this preamble, if an air agency authorizes an FLM or other federal agency to prepare and submit exceptional events demonstrations directly to the EPA, the air agency should also indicate in this authorization whether an FLM can initiate the Initial Notification of Potential Exceptional Event process and whether this process would include or exclude the authorizing air agency.

¹⁰¹ As previously indicated, the Initial Notification could include any form of communication (*e.g.*, letter, email, in-person meeting with an attendees list and discussion summary or phone conversation with follow-up email) that ultimately identifies the potential need to develop an exceptional events demonstration and communicates key information related to the data identified for potential exclusion. The EPA's timeline for formally responding to an agency's Initial Notification is based on the date of receipt of the identified communication.

¹⁰² 80 FR 65292 (October 26, 2015).

c. Comments and Responses

Other than the comments related to the “voluntary” versus “required” nature of the Initial Notification process, the majority of the remaining comments on this topic pertained to the content of the Initial Notification and to the mechanics of communications between the EPA and affected air agencies. Two state commenters agreed with the proposed content of the Initial Notification to include: a unique event name, an initial event description, the affected regulatory decision, a proposed target date for demonstration submittal, the most recent design value (including and excluding the event-affected data), and basic information specific to each monitored day. Other commenters indicated that the content of the Initial Notification should *not* be specified. While we are not specifying required content in regulatory language, we are providing example content of an Initial Notification in this preamble. We also note that individual EPA Regional offices may implement procedures within their regions to assist with event identification, prioritization and processing.

Regarding communications between the EPA and affected air agencies, one commenter encouraged the EPA to ensure communication is formalized in writing and clarify that the EPA should initiate conversations regardless of the “completeness” of the notification to avoid confusion about whether the EPA has received the notification. Another commenter asked that we include regulatory language requiring that the EPA negotiate a timeline for demonstration submittal based on the available (and sometimes very limited) resources of the affected air agency. We interpret this comment to mean that the “negotiation” requirement would be a requirement for air agency agreement on the timeline for submittal rather than a consultation on timing.

The EPA agrees with the commenter that decisions or specific direction provided or agreed to between the EPA Regional office and the affected air agency should be communicated in writing either by letter or email. By decisions or direction, we generally mean decisions regarding whether a potential event has regulatory significance (including the EPA's intent with respect to review), direction regarding specific event day(s) to pursue and/or information to include in a demonstration and decisions related to target dates for demonstration submittal. The EPA also agrees that we should acknowledge receipt, in writing, of any submitted written Initial Notification. We do not, however, agree with the other commenter's suggestion to include regulatory language requiring a negotiated timeline for demonstration submittal based on the available resources of the affected air agency. First, such a regulatory requirement would not provide for an outcome should the negotiations between the air agency and the EPA Region office fail to reach agreement. Also, an air agency's failure to meet a regulatory deadline could have different consequences than an air agency's failure to meet an EPA-identified target date. As we noted in the proposal and this preamble, the EPA will establish a target date for demonstration submittal, which the EPA will communicate in writing, after discussing the specifics of the potential event with the affected air agency and after considering the nature of the event, the anticipated timing of the regulatory decision, the target date for demonstration submittal proposed by the air agency as part of its Initial Notification (if provided), and the available time for both the air agency's preparation of the demonstration and the EPA's review. We believe this process adequately addresses the commenter's concerns without the need for regulatory text.

6. Submission of Demonstrations

a. Summary of Proposal

With respect to the submission of demonstrations, the EPA proposed to make the following changes to the regulatory language in 40 CFR 50.14(c)(3):

- Remove the general schedule provisions in 40 CFR 50.14(c)(3)(i) for submitting demonstrations.
- Move the language requiring an air agency to include the comments it received during the public comment period for the subject demonstration from 40 CFR 50.14(c)(3)(i) to (v).
- Modify the language at 40 CFR 50.14(c)(3)(iv) to more clearly identify the required elements of an exceptional events demonstration to include (1) a narrative conceptual model and (2) demonstrations and analyses that address the core statutory technical criteria.
- Modify the language at 40 CFR 50.14(c)(3)(v) to identify that a demonstration submittal must include (1) documentation that the air agency conducted a public comment process on its draft exceptional events demonstration that was a minimum of 30 days, which could be concurrent with the EPA's review, (2) any public comments received during the public comment period and (3) an explanation of how the air agency addressed the public comments.

As described in more detail in the proposed rule, the EPA proposed to remove the provision in 40 CFR 50.14(c)(3)(i) that requires air agencies to submit a demonstration “not later than the lesser of 3 years following the end of the calendar quarter in which the flagged concentration was recorded or 12 months prior to the date that a regulatory decision must be

made by EPA.” In place of this language, the EPA proposed to rely on the documentation submission schedule that, at the time of the proposal, appeared as Table 1 at 40 CFR 50.14(c)(2)(vi) in those cases where the data are to be used in initial area designations. If the data could influence a regulatory determination other than an initial area designation, the EPA proposed to rely on the case-by-case timelines established by the reviewing EPA Regional office as part of the Initial Notification of Potential Exceptional Event process. As we noted when discussing removing the deadlines associated with initial event flagging in Section IV.G.4 of this preamble, air agencies have previously expressed concern that the timelines for event flagging and demonstration submittal are not always appropriate because an air agency may not know that data influenced by an exceptional event caused the design value exceedance until 3 years after the event occurred.¹⁰³ The EPA has previously acknowledged that this scenario can and does occur, particularly for annual standards and when a regulatory decision is based on a design value that is averaged over 3 years.

With respect to the public comment provisions for a developed demonstration, the EPA proposed to move the language requiring an air agency to include the comments it received during the public comment period for the subject demonstration from 40 CFR 50.14(c)(3)(i) to (v) to consolidate the required elements of the public comment process for exceptional events demonstrations within a single regulatory provision. The proposal noted that the language at 40 CFR 50.14(c)(3)(i) requires that “A State must submit the public comments it received along with its demonstration to EPA.” The “public comments it received” refer to those obtained when the air agency follows the process outlined in 40 CFR 50.14(c)(3)(v), which requires the air

¹⁰³ *Responses to Significant First-Round Comments on the Draft Guidance Documents on the Implementation of the Exceptional Events Rule*, U.S. EPA, June 2012. Available in Docket No. EPA-HQ-OAR-2011-0887.

agency to document, and submit with its demonstration, evidence that it followed the public comment process.

Because the public comment process described in the 2007 rule did not identify a duration for the public comment process, the EPA also proposed to specify a minimum 30-day public comment process, which provides sufficient time for exchange between the reviewing public and the air agency. We noted that shorter comment periods may not provide necessary time for the public to research the identified event and associated supporting data while longer timeframes may not be possible where a near-term regulatory decision relies on an exceptional events decision. The proposal stated that in very limited cases where the air agency is relying on exceptional events claims as part of a near-term regulatory action, such as an initial area designation decision for a new or revised NAAQS under a 2-year designation schedule, the public comment period could be concurrent with the EPA's review provided the submitting air agency sends any received public comments and responses to the EPA by a specified date. If an air agency receives public comment disputing the technical elements of a demonstration during a comment period that runs concurrent with the EPA's review and these comments result in the air agency's need to reanalyze or reassess the validity of a claimed event, a second public comment period may be necessary.

The EPA also proposed to revise the language at 40 CFR 50.14(c)(3)(iv) so that it more clearly identifies the required elements of an exceptional events demonstration. The EPA proposed that each demonstration begin with a narrative conceptual model supported by summary tables or maps, which summarizes the event in question and provides context for required statutory technical criteria analyses. The EPA further proposed, consistent with other

proposed changes, that an air agency include in its demonstration to justify data exclusion evidence that the following statutory technical criteria are satisfied:

- The event was a human activity that is unlikely to recur at a particular location or was a natural event.
- The event was not reasonably controllable or preventable.
- The event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation (supported in part by the comparison to historical concentrations and other analyses).

The EPA sought comment on the identified proposed changes to the language at 40 CFR 50.14(c)(3)(i), (iv) and (v), which more clearly identify the required elements of an exceptional events demonstration.

b. Final Rule

As with our proposal to remove the general schedule deadlines associated with initial event flagging, the overwhelming majority of commenters supported our proposal to remove the general schedule demonstration submittal deadlines contained within 40 CFR 50.14(c)(3)(i). Therefore, upon consideration of those comments and for the reasons previously explained, we are promulgating this provision as proposed. One commenter expressed general support for this concept provided the deadline for demonstration submittals is not extended. In response, we note that while the deadline for demonstration submittal might be longer than it would have been under the previous deadline of “the lesser of 3 years following the end of the calendar quarter in which the flagged concentration was recorded or 12 months prior to the date that a regulatory

decision must be made by EPA,” we are not changing the timing of the regulatory actions in which the affected data may be used. Many of these deadlines are statutorily established and cannot be changed by regulation. Because the EPA is also accountable for these statutory deadlines, the effect of this now finalized exceptional events scheduling revision is compressing the timeline for the EPA’s review.

The final rule will provide limited flexibility regarding the deadline for submitting exceptional events demonstrations that are otherwise due October 1, 2016. Given the close proximity of the *Federal Register* publication date of this revised rule with the demonstration submittal deadline for data influenced by exceptional events that could be used in the initial area designation decisions for the 2015 Ozone NAAQS, we are intentionally adjusting the deadline for those demonstrations in Table 2 to § 50.14 and intend for this deadline to apply to submissions that would otherwise be due October 1, 2016. This rule is being promulgated in advance of the October 1, 2016 deadline for the 2015 Ozone NAAQS designations, providing stakeholders with sufficient notice of this updated submission deadline. As set forth in Table 2 to § 50.14, exceptional events demonstrations must be submitted to the EPA on the later of (1) sixty days after the effective date of this rule or (2) the date that state and tribal recommendations are due to the Administrator. Going forward, exceptional events demonstrations will be due no later than the date that state and tribal designation recommendations are due to the Administrator.

We received no significant comments regarding the proposed revisions associated with the public comment process. Therefore, for the previously explained reasons, we are finalizing, as proposed, the repositioning of the requirement that an air agency include any received public comments from 40 CFR 50.14(c)(3)(i) to (v). We are also promulgating the revised language at 40 CFR 50.14(c)(3)(v) to identify that a demonstration submittal must include (1) documentation

that the air agency conducted a public comment process on its draft exceptional events demonstration that was a minimum of 30 days, which could be concurrent with the beginning of the EPA's initial review period, (2) any public comments received during the public comment period and (3) an explanation of how the air agency addressed the public comments. As indicated in 40 CFR 50.14(c)(3)(v)(A), we have also finalized 30 days as the minimum duration for a public comment period.

We are promulgating revisions to the submission and required elements of an exceptional events demonstration at 40 CFR 50.14(c)(3)(iv), as proposed, for the previously stated reasons and as supported by commenters. Regarding the requirement that components of a demonstration include a narrative conceptual model, one commenter asked that we use the terminology "narrative" or "executive summary" rather than "conceptual model." We have retained the use of narrative conceptual model because we believe this best conveys our intent, which is the "story" or "executive summary" of the event that provides an overview of the technical information in the demonstration and helps identify relevant quantitative information critical in satisfying the Exceptional Events Rule criteria. In most cases, air agencies will support the discussion in the narrative conceptual model with tables and maps.

c. Comments and Responses

We address any additional comments received on this topic in the Response to Comments document found in the docket for this action.

7. Timing of the EPA's Review of Submitted Demonstrations

a. Summary of Proposal

The proposal summarized and clarified some of the EPA's previous statements regarding the prioritization and submittal of demonstrations, and proposed regulatory language to increase

the efficiency of preparing, submitting and reviewing exceptional events demonstrations. We did not propose any changes to regulatory language pertaining to the timing of the EPA review process. Rather the proposal discussed processes, expectations and communications concerns, which are at the center of timing-related issues.

The proposal articulated the EPA's previously expressed commitment to work collaboratively with air agencies as they prepare complete demonstrations. As we have previously communicated, demonstrated and summarized in our best practices for communications,¹⁰⁴ we encourage ongoing discussions between the reviewing EPA Regional office and the submitting air agency through the duration of the exceptional events process beginning with the Initial Notification of Potential Exceptional Event. Implementing the approaches identified by air agencies has generally improved the exceptional events process by improving relationships between air agencies and the EPA Regional office, clarified expectations, and resulted in decreased instances of submissions containing insufficient or unnecessary information.

The proposal clarified our continued efforts to improve the exceptional events process, in part through improved communications but also through regulatory changes and workload prioritization. On this last point, the proposal identified that in reviewing submitted demonstrations, the EPA will generally give priority to exceptional events determinations that may affect near-term regulatory decisions, such as the EPA's action on SIP submittals, NAAQS designations and clean data determinations (*see* discussion in Section IV.C of this preamble). The proposal stated the EPA's intent to make a decision regarding event status expeditiously

¹⁰⁴ *Best Communication Practices for Preparation of Exceptional Event Demonstrations*, U.S. EPA, OAQPS, 2015. Available at <http://www2.epa.gov/air-quality-analysis/treatment-data-influenced-exceptional-events>.

following submittal of a complete demonstration if required by a near-term regulatory action. If during the review process the EPA identifies the need for additional information to determine whether the exceptional events criteria are met, the EPA will notify the submitting air agency and encourage the agency to provide the supplemental information. If the information needed is minor and a natural outgrowth of what was previously submitted, the EPA will not require the air agency to undergo an additional public notice-and-comment process. However, if the needed information is significant, the EPA may request that the air agency re-notice the demonstration before resubmitting it to the EPA, thus requiring an additional EPA review following resubmittal. The EPA will work with air agencies on supplemental timeframes; however, the mandatory timing of the EPA actions may limit the response time the EPA allows. The EPA proposed to include as rule text a requirement for the air agency to submit additional information within 12 months. If additional information is not received in 12 months, then the EPA would consider the submitted demonstration inactive, and would not continue the review or take action. In effect, an air agency's lack of response within a 12-month period would "void" the submittal. The proposal stated that in these cases, the EPA would not intend to issue a formal notice of deferral. If the air agency later decided to pursue the exceptional events claim after a 12-month period of inactivity, it may re-initiate the exceptional events process by submitting a new Initial Notification of Potential Exceptional Event followed by a new demonstration, which could simply be revising the original submittal to include the additional information previously requested by the EPA.

The proposal explained that at the conclusion of the EPA's review, the EPA would make a determination regarding the status of a submitted exceptional events demonstration. The EPA's

decision could result in concurrence, nonconcurrence or deferral.¹⁰⁵ In acting on a submitted demonstration covering multiple event days and/or multiple flags, the EPA could concur with part of a demonstration and nonconcur or defer other flagged values. If the EPA determined that the events addressed in an exceptional events demonstration are not anticipated to affect any future regulatory decision, the EPA could defer review of these events and notify the submitting agency if a subsequent review results in a determination that the events would affect a regulatory decision.¹⁰⁶ The proposal stated that formal mechanisms for deferral could include the EPA's indicating this decision by letter, by email to a responsible official or during a high-level meeting with an attendees list and discussion summary.

b. Final Rule

For the previously explained reasons and as supported by one commenter, the EPA is finalizing with some clarification to the proposed language, the regulatory provision at 40 CFR 50.14(c)(3)(vi) to cease review of a demonstration following a 12-month period of inactivity by the submitting air agency. This finalized provision would apply when the air agency has submitted a demonstration for which the EPA has requested additional information, as indicated in writing by letter or email. The air agency will have 12 months from the date of the EPA's request to respond with the requested information. The EPA intends to track progress on demonstrations with regulatory significance and this 12-month period will ensure air agency accountability for its demonstrations and will allow the EPA to appropriately prioritize

¹⁰⁵ The EPA anticipates a reduced number of deferrals and/or nonconcurrences for demonstrations associated with the Initial Notification of Potential Exceptional Event process as discussed in Section IV.G.5 of this preamble because the EPA and the affected air agency would have discussed issues/concerns prior to the EPA's decision on a submitted demonstration.

¹⁰⁶ Routine status calls between the reviewing EPA Regional office and air agencies could include an agenda item to review the status of all submitted demonstrations, including those that the EPA has deferred.

resources. Although the EPA anticipates ongoing discussions with the air agency, if the EPA has not received information from the air agency in response to the EPA's request for additional information, then least a month before the expiration period, the EPA will remind the air agency in writing (*e.g.*, a letter or email) of the upcoming deadline. The EPA will work with individual air agencies to address those situations where a response is insufficient or where an air agency needs additional time to prepare needed analyses or assemble identified information. If the air agency has not responded within this 12-month timeframe, then the EPA's review of the demonstration will terminate. The EPA can provide notification of such termination by sending written notification (*e.g.*, a letter or email) to the affected air agency.

Although we are not promulgating timelines in rule language for the EPA's response to demonstrations, we are identifying here the response timelines that we intend to follow during the Initial Notification and demonstration review processes. As we stated in Section IV.G.5.b of this preamble, the EPA intends to acknowledge receipt shortly after receiving an air agency's Initial Notification and then formally respond to the Initial Notification within 60 days. The EPA response will provide the EPA Regional office's best assessment of the priority that can be given to the submission once received, any case-specific advice the EPA may have to offer for the preparation of the demonstration, and the target date for demonstration submittal.

The EPA generally intends to conduct its initial review of an exceptional events demonstration with regulatory significance within 120 days of receipt. This initial review could be extended in certain circumstances, such as if the EPA is reviewing a demonstration concurrent with an air agency's public comment period. Following this initial review, the EPA will generally send a letter or email to the submitting air agency that includes a completeness determination and/or a request for additional information, a date by which the supplemental

information should be submitted (if applicable), and an indicator of the timing of the EPA's final review. The EPA intends to make a decision regarding event concurrence as expeditiously as necessary if required by a near-term regulatory action, but no later than 12 months following submittal of a complete demonstration.

In addition, if an air agency submits a demonstration for an event not discussed in the Initial Notification process or that the EPA has determined during the Initial Notification process to not to have regulatory significance (and there is no other compelling reason for excluding data), then the EPA will "close out" a submitted demonstration with a "deferral letter" within 60 days of receipt of the demonstration.

c. Comments and Responses

Numerous commenters asked that the EPA promulgate deadlines by which the EPA must act on exceptional events demonstrations. We are accountable for many statutorily-established deadlines for regulatory action. We also note that promulgating timelines for action might not have the intended result of expediting the EPA's action because it could force both the air agencies and the EPA to focus their efforts and limited resources on demonstrations that ultimately have no regulatory significance. Or, promulgated timelines could cause the EPA to act on determinations in the order in which they were received instead of allowing the EPA to prioritize demonstrations for nearer-term regulatory actions or mandated regulatory actions.

Establishing regulatory deadlines also implies consequences for missing such deadlines. Three commenters have suggested that the EPA's failure to act on a submitted demonstration within a promulgated timeframe should result in automatic approval of the subject demonstration. The EPA's inaction cannot be assumed to be approval of a demonstration. By statute in CAA section 319(b), exceptional events must satisfy certain definitional and

procedural requirements, including a determination by the Administrator. These CAA criteria cannot be presumed to be satisfied unless the Administrator concurs.¹⁰⁷ Inaction is not concurrence. Additionally, approval by default is not appropriate because it would not ensure that air agencies and the EPA are upholding the principles and requirements of CAA section 319(b). Specifically, automatic approval of a demonstration without adequate review would not ensure that air agencies are taking appropriate and reasonable actions to protect public health from exceedances or violations of the NAAQS. Another consequence of missing a promulgated deadline could be the opportunity for an air agency, or, potentially, another interested party, to file a lawsuit. This action is also not likely to expedite a decision on a given demonstration.

While we are not promulgating timelines in rule language for EPA's action, this preamble identifies the response timelines that we intend to follow during the Initial Notification and demonstration review process. Further, we have finalized provisions that focus on exceptional events demonstrations that have regulatory significance, which means that the demonstrations affect the outcome of a regulatory action. We are committed to taking action on all submitted demonstrations that have regulatory significance.

Two commenters expressly supported the EPA's approach to prioritizing exceptional events demonstrations to focus on those that affect regulatory determinations. Several other commenters indicated their belief that the EPA should act on all submitted demonstrations. Regarding acting on all demonstrations, we have taken numerous steps in this action and

¹⁰⁷ As discussed in more detail in Section IV.G.7 of this preamble, concurrent with these rule revisions, the EPA has revised the delegation of authority for exceptional events decision making. These authorities were previously delegated to the EPA Regional Administrators and, under the revised delegation, may be redelegated from the EPA Regional Administrator to the Regional Air Division Director or equivalent highest manager who exclusively oversees air programs.

otherwise to improve the exceptional events process and we maintain that, given limited resources, both the air agencies' and the EPA's efforts should focus on the development and review of those demonstrations that affect regulatory determinations. Expending time and energy on demonstrations that will not influence the outcome of a regulatory action is generally not an efficient use of resources. As we have indicated in numerous passages in this final action, we will consider exceptional events demonstrations on a case-by-case basis and air agencies will have an opportunity to state their position during the Initial Notifications process. Unless there is a compelling reason, we will "close out" those demonstrations that we receive, which were not discussed in the Initial Notification process or those which the EPA has determined during the Initial Notification process do not have regulatory significance.

Another commenter asks that the EPA "grandfather" or otherwise respond to those demonstrations that have been previously submitted but on which the EPA has not yet acted. In promulgating these final rule revisions, we are taking no actions with respect to previously submitted and unprocessed demonstrations that otherwise remain "open." To request a response for an inactive demonstration, we ask that the affected air agency contact the reviewing EPA Regional office and inquire as to the most appropriate next steps.

Two commenters supported, and several opposed, the EPA's regulatory provision to terminate the EPA's obligation to review a demonstration following a 12-month period of inactivity by the air agency. One of these supporters asked that, to facilitate transparency, that the EPA develop a publicly-accessible and transparent tracking system or otherwise provide status updates. The EPA agrees that a national tracking system could be valuable. We intend to explore this concept further as we implement these rule revisions.

8. Dispute Resolution Mechanisms

In the November 2015 proposal, the EPA discussed currently available dispute resolution mechanisms but neither proposed any associated regulatory language nor solicited comment on the dispute resolution process. Rather, the proposal explained that there is no need for a formal dispute resolution mechanism for exceptional events for the following reasons: (1) the existing dispute resolution mechanisms are sufficient, (2) the EPA is committed to focusing on communication and collaboration with the submitting air agency through the exceptional events demonstration process, and (3) this final action includes useful clarifications that should reduce disagreements between air agencies and the EPA regarding the adequacy of demonstrations.

Despite our statement that we were not soliciting comment of the topic of dispute resolution, numerous commenters requested that the EPA promulgate a dispute resolution process. Although commenters specified that the process be “judicially appealable,” “include an independent third party with technical expertise” and/or “involve multiple EPA decision makers,” no commenters provided substantive suggestions as to the mechanism by which a dispute resolution process could be implemented. In this action, we are not promulgating a dispute resolution mechanism. We are, however, restating currently available elevation measures and the EPA’s internal mechanisms that ensure regional consistency.

As noted in the proposal, several mechanisms currently exist that air agencies can use at various points in the exceptional events process. These mechanisms include engaging in early dialogue with the reviewing EPA Regional office, submitting requests for reconsideration to the official who made the determination if a request identifies a clear error or if the reviewing EPA Regional office overlooked information submitted by the affected air agency, and/or elevating the concern within the EPA’s chain of command. Additionally, air agencies can raise any

unresolved event-related issues during the regulatory process that relies upon the claimed event-influenced data by participating in related public notice-and-comment processes and/or challenging in an appropriate court the regulatory decision subsequently made based in part on the EPA's exceptional events determination.

The EPA did not specifically identify in the proposal some of the internal steps we have taken to improve our ability to act on exceptional events activities and actions in a timely and efficient manner. First, we have expanded the number of officials within the EPA who can make exceptional events decisions. While the language of CAA section 319(b) states that decision making on exceptional events is a process undertaken by the Administrator, our promulgation of the 2007 Exceptional Events Rule was accompanied by a delegation of authority delegating the decision making for exceptional events from the Administrator to the Assistant Administrator for Air and to the EPA Regional Administrators. However, this delegation did not allow for final decision making below the EPA Regional Administrator level. As part of this rule revision process, we revised the delegation of authority for exceptional events to allow for redelegation from the EPA Regional Administrator to the EPA Regional Air Division Director or equivalent highest manager who exclusively oversees air programs. If an EPA Regional Administrator elects to pursue redelegation, then the EPA Regional Air Division Director (or equivalent manager) would make exceptional events decisions and the EPA Regional Administrator would be an additional resource available within the elevation process for an air agency wishing to elevate concerns regarding an exceptional events-related decision.

The proposal also did not explain the role of the EPA's National Exceptional Events Work Group. This work group consists of technical and policy staff within the EPA's Office of Air Quality Planning and Standards (OAQPS), each of the EPA's Regional offices and the

EPA's Office of General Counsel. The work group typically meets once each month and discusses technical and policy issues regarding exceptional events, including best practices implemented within the regions, new or evolving tools and technologies to help identify events and assess their impacts, upcoming regulatory decisions that could be influenced by event determinations and opportunities for outreach. In addition, at each meeting, regional participants report on the status of exceptional events actions in their respective states. This event report out also includes a discussion of new event types and/or novel policy issues and provides an opportunity for regional and OAQPS review of and input on specific demonstrations. These collaborative reviews are particularly relevant for new events (such as for the 2012 Wyoming Stratospheric Ozone Intrusion¹⁰⁸).

As noted in the proposal, with exceptional events decisions, the air agency has opportunities to elevate concerns during two processes: the exceptional events determination and the subsequent regulatory action that relies on the exceptional events decision.

V. Mitigation

Section 319(b)(3)(A) of the CAA identifies five principles that the EPA must follow in developing implementing regulations for exceptional events:

- (i) Protection of public health is the highest priority;
- (ii) Timely information should be provided to the public in any case in which the air quality is unhealthy;
- (iii) All ambient air quality data should be included in a timely manner in an appropriate federal air quality database that is accessible to the public;

¹⁰⁸ Wyoming Department of Environmental Quality, Air Quality Division. Big Piney and Boulder, Wyoming Ozone Standard Exceedance, June 14, 2012. Available at <http://www2.epa.gov/air-quality-analysis/exceptional-events-submissions-table>.

- (iv) Each state must take necessary measures to safeguard public health regardless of the source of the air pollution; and
- (v) Air quality data should be carefully screened to ensure that events not likely to recur are represented accurately in all monitoring data and analyses.

The regulatory requirements implementing (iii) and (v) of this part of the statute are found in 40 CFR 50.14 while the regulatory requirements implementing (i) and (iv) are found in 40 CFR 51.930, Mitigation of Exceptional Events. Both §§ 50.14(c)(1) and 51.930(a)(1) implement (ii) of this part by requiring states to provide notice of events to the public.

The EPA promulgated the “mitigation” measures¹⁰⁹ at 40 CFR 51.930 when we finalized the Exceptional Events Rule in 2007, but we did not incorporate these measures into the criteria and processes by which data are excluded from use in regulatory determinations. The provisions at 40 CFR 51.930 require air agencies requesting data exclusion to take appropriate and reasonable actions to protect the public health from exceedances or violations of the NAAQS, promptly notify the public when the air exceeds or is expected to exceed the NAAQS, and educate the public regarding steps they can take to minimize exposure. These requirements apply whenever an air agency requests data exclusion, regardless of whether the EPA approves the exclusion. Although air agencies submitting demonstrations must meet the requirements at 40 CFR 51.930, the provisions do not require air agencies to submit their identified measures to the EPA or to notify the EPA of the measures an air agency plans to take or has taken. The mitigation measures that the EPA has seen air agencies practicing most commonly are those related to the requirement that air agencies “provide for prompt public notification whenever air

¹⁰⁹ The term “mitigation” does not appear in CAA section 319(b). It appears in the title but not the text of 40 CFR 51.930.

quality concentrations exceed or are expected to exceed the NAAQS.” Often, these public notifications have included public health alerts for high wind dust events or wildfires. Other aspects of mitigation, including implementing appropriate measures to protect public health beyond notification, are also important in implementing the CAA guiding principle that “each State must take necessary measures to safeguard public health regardless of the source of the air pollution.”

A. Summary of Proposal

The proposal identified several possible changes to the mitigation-related rule components and solicited comment on approaches ranging from retaining the existing rule requirements at 40 CFR 51.930 to including several new components. The proposal indicated that as a result of commenter feedback, we might make no changes, adopt all of the presented components, or adopt some of the described features. The proposal also indicated that, if finalized, the identified mitigation components, which would be an obligation for an affected air agency and serve as criteria for the EPA’s approval of future exceptional events demonstrations, would only apply to those air agencies with areas subject to “historically documented” or “known seasonal” exceptional events.

1. Defining Historically Documented or Known Seasonal Events

The proposal accepted comment on whether to define “historically documented” or “known seasonal” exceptional events to include events of the same type and pollutant (*e.g.*, high wind dust/PM or wildfire/ozone) that recur on an annual or seasonal basis and meet any of the following criteria: an event for which an air agency has previously submitted exceptional events demonstrations; an event that an air agency has previously flagged for concurrence in AQS (regardless of whether the air agency submitted a demonstration); or an event that has been the

subject of public health alerts or published scientific journal articles. The proposal indicated that the EPA would not require an air agency to develop a mitigation plan for the first event of a given type (*e.g.*, if an area is prone to wildfires but has never experienced a high wind dust event, then it would not be expected to develop a mitigation plan for its first high wind dust event, but it would be expected to develop a mitigation plan for wildfires). A second event of a given type within a 3-year period would subject the area to “having a history” and, therefore, needing a mitigation plan.¹¹⁰ This option avoids plan development following a one-of-a-kind occurrence.¹¹¹ In defining “first” and “second” events, the EPA indicated that it could consider events that affect the same AQCR, but not necessarily the same monitor.¹¹² We also solicited comment on whether it would be appropriate to consider a season of multiple events of a common type as one of three required seasons, so that a mitigation plan would be required only when an event type persists across several years.

2. Mitigation Plan Components

The proposal also identified and solicited comment on the following three plan components that could be recommended or required to implement the mitigation principles found in CAA section 319(b)(3)(A): public notification and education; steps to identify, study and implement mitigating measures; and provision for periodic revision of the mitigation plan (to include public review of plan elements). Given the identified components, the proposal solicited comment on appropriate timelines for submitting a plan.

¹¹⁰ A 3-year period is measured backwards from the date of the most recent event.

¹¹¹ Because the form of the NAAQS varies by pollutant, it is possible that multiple events in a 3-year period may not cause a NAAQS violation. An air agency that identifies multiple events of the same type (*e.g.*, wildfire/ozone) in AQS, but prepares and submits a demonstration for only one of these events, *would* trigger the proposed requirement to develop a mitigation plan.

¹¹² 40 CFR part 81, subpart B, Designation of Air Quality Control Regions, defines Air Quality Control Regions.

3. Options for Implementing Mitigation Plans

Because the 2007 Exceptional Events Rule did not tie the mitigation elements at 40 CFR 51.930 to the EPA's review of exceptional events demonstrations, we proposed and solicited feedback on the following options: Option 1 included the EPA's review for completeness but not substantive approval or disapproval, while Option 2 included the EPA's approval of the substance of the mitigation plan. The proposal noted that neither option would require a mitigation plan to be included in a SIP or to be otherwise federally-enforceable. Regarding the submittal of a mitigation plan to the EPA, the EPA proposed that air agencies with historically documented or known seasonal exceptional events could submit the mitigation plan to the EPA in advance of an event, or submit a mitigation plan along with an exceptional events demonstration. For both options, the proposal explained that if the EPA otherwise concurred with an exceptional events demonstration for a type of event that is also the subject of the mitigation plan, the EPA would only concur with such a demonstration for the relevant event type if a mitigation plan passed the type of review described in the option (*i.e.*, completeness review for Option 1 or approval of content for Option 2).

B. Final Rule

In keeping with the EPA's mission to protect public health and consistent with the principles included at CAA section 319(b)(3)(A), and after consideration of the public comments, we are promulgating new mitigation-related regulatory language at 40 CFR 51.930 requiring the development of mitigation plans in areas with "historically documented" or "known seasonal" exceptional events. As part of these promulgated requirements, we have decided to follow the review option identified as Option 1 in the proposal, which includes the EPA's review and a completeness determination, but not the EPA's "approval" of the plan content (identified

as Option 2 in the proposal), as discussed in the comments and responses section below. We believe this option maximizes the flexibility of the air agency while providing for the protection of public health through the EPA's review of the required plan content and through the required public review process. We further believe that Option 2, which required the EPA's approval of mitigation plan content, could have the unintended effect of imposing additional administrative burden (*e.g.*, multiple rounds of review and revision) without corresponding additional public health and air quality benefit. Other regulatory mechanisms are already available to address public health and air quality, as needed (*e.g.*, SIP revisions or the regulatory action that is the focus of an event of the type that is the subject of the mitigation plan and an exceptional events demonstration). We are also adding a provision to clarify that, after an initial implementation period (as discussed in Section V.B.3 of this preamble), the EPA will not concur with an air agency's request to exclude data that have been influenced by an event of the type that is the subject of a required mitigation plan if an air agency has not submitted the related required mitigation plan. The EPA could, however, either nonconcur or defer action on a demonstration for such event-influenced data. The EPA's action would likely depend on the timing of the associated regulatory action. We are promulgating this regulatory language after seeking comment on approaches ranging from retaining the existing "mitigation" rule requirements to promulgating new mitigation-related rule components.

1. Defining Historically Documented or Known Seasonal Events

We are defining "historically documented" or "known seasonal" events to include events of the same type and pollutant (*e.g.*, high wind dust/PM or wildfire/ozone) that recur every year, either seasonally or throughout the year. For purposes of identifying the bounds of "a particular area" for those areas that are initially subject to the requirement to develop a mitigation plan (as

discussed later in this section), we are using nonattainment area boundaries or county boundaries for those areas not in a nonattainment area. After these initial areas for which we have identified boundaries, the EPA Regional office and the affected air agencies should consult regarding how to characterize “a particular location.” Ultimately, the EPA will determine the bounds for “a particular location.”

Regarding recurrence, we are using the benchmark of three events in 3 years, which applies regardless of an area’s designation status with respect to the NAAQS that could be the focus of a potential demonstration for a recurring event and regardless of whether the event type is the focus of specific recurrence circumstances within this rule for the “human activity unlikely to recur at a particular location or a natural event” criterion. We measure the 3-year period backwards from the date of the most recent event. Similar to our discussion of recurrence for the “human activity unlikely to recur” criterion in Section IV.E.1 of this preamble, if there have been two prior events of a similar type (*i.e.*, a similar event type generating emissions of the same pollutant) within a 3-year period in “a particular location,” the third event constitutes recurrence. While we are using the benchmark of three events in a 3-year period, for purposes of “historically documented” or “known seasonal” events, we will treat a season with multiple events as one event such that a mitigation plan will be required only when an event type persists across several years. For example, an area may not have previously experienced wildfires in the past 10 years, but then experiences multiple wildfires and multiple exceedances in a single wildfire season. If these multiple wildfires affect the same general geographic area and monitors in a relatively short period of time (*e.g.*, 2-3 months), then they could be considered a single event for purposes of developing a mitigation plan and would not trigger the requirement for a mitigation plan. Also, for purposes of counting a season towards the limit of three seasons in 3

years, we mean a season containing one or more events for which an air agency has previously submitted exceptional events demonstrations or a season of events that is the subject of an Initial Notification of Potential Exceptional Event as discussed in Section IV.G.5 of this preamble (regardless of whether the air agency submitted a demonstration).¹¹³ Where an area experiences multiple event seasons in a given year (*e.g.*, a spring season and a fall season of events), then each season will count towards the benchmark of three recurrences in 3 years. Under this scenario, an area could experience a single season of events in year one, no events in year two, and multiple seasons of events in year three. Using the benchmark of three event-containing seasons in 3 years would subject the area to “having a history” and, therefore, needing a mitigation plan. The requirements of this section will apply regardless of the event/pollutant combination and regardless of whether the event type is the focus of specific recurrence circumstances within this rule for the “human activity unlikely to recur at a particular location or a natural event” criterion. We note, however, a demonstration for an event (or event season) for which the EPA nonconcurs (or previously nonconcurred) will not count towards recurrence.

Applying this framework of three events (or three seasons with multiple events of a common type) in a 3-year period, we identify in Table 6 those areas that have experienced recurring events during the timeframe from January 1, 2013, through December 31, 2015. Per the requirements set forth in 40 CFR 51.930(b)(1)(ii), we are using this action to provide written

¹¹³ Because the Initial Notification of Potential Exceptional Event is a new requirement in this action, we cannot use it to define recurrence for those areas that are initially subject to the requirement to develop a mitigation plan. For these areas, we are defining recurrence as three events or event seasons for which an air agency submitted a demonstration within a 3-year period or three events or event seasons in a 3-year period that resulted in a NAAQS exceedance(s) or violation(s) for which an air agency has previously flagged events for concurrence in AQS (regardless of whether the air agency submitted a demonstration).

notice that the areas identified in Table 6 need to submit mitigation plans according to the requirements of the rule provisions in 40 CFR 51.930(b).

Table 6. Areas Subject to the Mitigation Requirements in 40 CFR 51.930(b)^a

Pollutant	AQS Flag^b	AQS Flag Description	State	Nonattainment Area, County or City Boundary
Ozone	RO	Stratospheric Ozone Intrusion	CO	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO Ozone Nonattainment Area
Ozone	RT	Wildfire-U. S.	CO	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO Ozone Nonattainment Area
Ozone	RT	Wildfire-U. S.	NV	Clark County
PM ₁₀	RJ	High Winds	AZ	Phoenix, AZ PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	AZ	Rillito, AZ PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	AZ	West Pinal, AZ PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	AZ	Yuma, AZ PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	AZ	Gila River Indian Community
PM ₁₀	RJ	High Winds	AZ	Salt River Pima-Maricopa Indian Community
PM ₁₀	RJ	High Winds	CA	Coso Junction, CA PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	CA	Imperial Valley, CA PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	CA	Coachella Valley, CA PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	CA	San Joaquin Valley PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	CA	Los Angeles South Coast Air Basin PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	CO	Alamosa County
PM ₁₀	RJ	High Winds	CO	Prowers County
PM ₁₀	RJ	High Winds	NM	Anthony, NM PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	NM	Luna County
PM ₁₀	RJ	High Winds	NV	Nye County
PM ₁₀	RJ	High Winds	NV	Clark County PM ₁₀ Nonattainment Area
PM ₁₀	RJ	High Winds	WA	Wallula PM ₁₀ Maintenance Area
PM _{2.5}	RA	African Dust	TX	Harris County
PM _{2.5}	RJ	High Winds	TX	El Paso County
PM _{2.5}	RS	Volcanic Eruptions	HI	Hawaii County
PM _{2.5}	RT	Wildfire-U. S.	CA	Nevada County
PM _{2.5}	RT	Wildfire-U. S.	CA	Sacramento, CA PM _{2.5} Nonattainment Area
PM _{2.5}	RT	Wildfire-U. S.	MT	Missoula County
PM _{2.5}	RT	Wildfire-U. S.	MT	Ravalli County
PM _{2.5}	RT	Wildfire-U. S.	NV	Carson City (City)
PM _{2.5}	RT	Wildfire-U. S.	NV	Douglas County
PM _{2.5}	RT	Wildfire-U. S.	NV	Washoe County
SO ₂	RS	Volcanic Eruptions	HI	Hawaii County

^a The areas noted in this table were identified using monitoring data in AQS for the January 1, 2013, through December 31, 2015, timeframe. The EPA downloaded data with request exclusion flags in May 2016, matched these data to exceedance days and then identified those areas with three seasons of events within a 3-year period.

^b The complete list of AQS qualifier codes and descriptions is available at <https://aqs.epa.gov/aqsweb/documents/codetables/qualifiers.html>.

An area that appears in Table 6 for multiple NAAQS and/or event types could have a single mitigation plan, provided the plan components and actions address the multiple NAAQS and events. For example, a few areas have recurring high wind dust events for both PM₁₀ and PM_{2.5}. These areas could develop a single high wind dust mitigation plan that addresses both PM₁₀ and PM_{2.5}.

Within 2 years of the effective date of this action, air agencies responsible for ensuring air quality for the identified areas shall submit mitigation plans to the applicable EPA Regional Administrator. After this 2-year timeframe, the EPA will not concur with an air agency's request to exclude data that have been influenced by an event of the type that is the subject of a required mitigation plan if an air agency has not submitted the related required mitigation plan. The EPA could, however, either nonconcur or defer action on a demonstration for such event-influenced data. The EPA's action would likely depend on the timing of the associated regulatory action. As other areas become subject to the mitigation requirements identified in this action, the EPA will notify such areas in writing of the need for a mitigation plan. We discuss the timing associated with implementing a mitigation plan in more detail in Section V.B.3 of this preamble.

2. Mitigation Plan Components

After considering the public comments we received, we are finalizing the following three required plan components to help implement the mitigation principles found in CAA section 319(b)(3)(A). Unless otherwise specified, each mitigation plan should address actions that would be taken within an air agency's own jurisdiction for events that happen within its own jurisdiction or within the jurisdiction of another air agency.

- a. Public notification to and education programs for affected or potentially affected communities. Air agencies are required to include in their mitigation plans steps to activate public notification and education systems whenever air quality concentrations exceed or are expected to exceed an applicable short-term NAAQS.¹¹⁴ If possible, air agencies would notify the public of the actual or anticipated event at least 48 hours in advance of the event using methods appropriate to the community being served. (The EPA recognizes that for some event types, a 48-hour advance notice may not be possible.) Outreach mechanisms could include: Web site alerts, National Weather Service alerts, telephone or text bulletins, television or radio campaigns or other messaging campaigns. Public notification and education programs should include some or all of the following actions to support the outreach system: adoption of methods for forecasting/detection, consultation with appropriate health department personnel regarding issuing health advisories and suggested actions for exposure minimization for sensitive populations (*e.g.*, remain indoors, avoid vigorous outdoor activity, avoid

¹¹⁴ By short-term, we mean NAAQS with averaging times that are 24-hours or less. We do not believe it is appropriate to notify the public when the pollutant concentrations exceed or violate a 3-month rolling average or an annual average as these violations reflect cumulative effects and in many cases the cause of the exceedance or violation is long past.

exposure to tobacco smoke and other respiratory irritants and, in extreme cases, evacuation or public sheltering procedures).

- b. Steps to identify, study and implement mitigating measures, including approaches to address each of the following:
 - (i) Mandatory or voluntary measures to abate or minimize contributing controllable sources of identified pollutants that are within the jurisdiction of the affected air agency. An air agency is encouraged to consider full-time or contingent controls on event-related sources as well as non-event related sources. For example, these measures might include continuously operating control measures during an extreme event for identified sources that normally operate these same controls on an intermittent basis. It could also involve including work practices (*e.g.*, water spray for dust suppression) or contingent limits during extreme events on emissions from non-event related sources that, under non-event periods, have no or less stringent emissions limits or work practices.
 - (ii) Methods to minimize public exposure to high concentrations of identified pollutants.
 - (iii) Processes to collect and maintain data pertinent to the event (*e.g.*, to identify the data to be collected, the party responsible for collecting and maintaining the data and when, how and to whom the data will be reported).
 - (iv) Mechanisms to consult with other air quality managers in the affected area regarding the appropriate responses to abate and minimize impacts. Consultation could include collaboration between potentially affected local, state, tribal and federal air quality managers and/or emergency response personnel.

- c. Provisions for review and evaluation of the mitigation plan and its implementation and effectiveness by the air agency and all interested stakeholders (*e.g.*, public and private land owners/managers, air quality, agriculture and forestry agencies, the public). During the initial development of the mitigation plan, this public review process would follow a process similar to that required for the public review of an exceptional events demonstration. That is, to solicit feedback from interested parties, an air agency subject to the mitigation requirements would conduct a public comment process on a draft mitigation plan for a minimum of 30 days. The air agency would then submit the public comments received to the EPA with the air agency's submission of its final mitigation plan. With this submission and for each public comment received, the air agency would explain the changes made to the mitigation plan or explain why the air agency did not make any changes to the mitigation plan. We believe that public feedback will inherently strengthen the mitigation plans and focus the air agency action in the areas most needing the attention. Air agencies and the affected public are better suited than the EPA to determine effective mitigation measures.

The EPA expects that once an area becomes subject to these mitigation requirements, it will always have a mitigation plan in effect, although the plan would be periodically revised and evaluated for effectiveness. The process by which the air agency accomplishes this periodic review and evaluation of plan effectiveness after the initial development of the plan must also be identified in the plan. The review and evaluation would necessarily include a public process to solicit feedback from interested stakeholders (*e.g.*, public and private land owners/managers, air quality, agriculture and forestry agencies, the public). Periodic review could follow a process similar to the one

identified for initial plan development. Although the air agency can determine the review timeframe for a mitigation plan, we offer the following guidance. For example, within this section of a mitigation plan, the air agency could specify review and revision, if appropriate, and recertification of the mitigation plan every 3 years. The air agency could also identify that review, revision, and recertification would occur after a season of implementing the plan, which could result in annual review if events continued to recur with such a frequency. Or, if the subject event did not recur for 5 years, then plan reassessment would follow a longer timeframe.

Because evaluating the effectiveness of a mitigation plan includes actions and responses from a variety of interested stakeholders, the air agency should consider submitting a summary and response to the comments received during the public plan review process to the EPA along with the recertification statement and/or revised mitigation plan. While we are *requiring* an air agency to submit any received public comments to the EPA after the air agency *initially develops* a mitigation plan, we are not requiring that the air agency summarize and submit public comments for subsequent reviews and plan reassessments.

If the historically documented or known seasonal exceptional events continue to result in elevated pollutant concentrations above the relevant NAAQS, thus showing that the combination of the existing SIP and the existing mitigation plan does not effectively safeguard public health, the air agency should consider whether to strengthen the mitigation plan.

In adopting these revisions, it is possible that all affected air agencies may not need to prepare new plans. If an air agency has developed and implemented a contingency plan under 40

CFR part 51, subpart H, Prevention of Air Pollution Emergency Episodes, that meets the requirements of 40 CFR 51.152, and that includes provisions for events that could be considered “exceptional events” under the provisions in 40 CFR 50.14, then the subpart H contingency plan would likely satisfy the mitigation requirements. If the identified basic elements are included and addressed, including the element for public comment, then other types of existing mitigation or contingency plans may satisfy the mitigation plan requirements. For example, if an area has developed a natural events action plan or a high wind action plan covering high wind dust events, this plan likely would satisfy mitigation elements for high wind dust events. Smoke management programs and/or forest management plans might also satisfy the mitigation elements for prescribed fires and wildfires. Most air agencies likely have sufficient, established processes that meet the public notification and education element, and which can be easily adapted or modified to meet the mitigation elements proposed in this action.

3. Implementing Mitigation Plans

The EPA is finalizing implementation provisions that provide for the EPA’s review and verification of the mitigation plans’ inclusion of the required elements and to ensure that the development of the mitigation plan included a public comment process. We would not formally review the substance of the plan in the sense of approving the details of the specific measures and commitments in the plan. We will, however, review each submitted plan and verify that it includes the required elements. Within 60 days of receipt of such a plan, the EPA plans to notify the submitting air agency that we have reviewed the mitigation plan and verified that it contains the required elements. Mitigation plans developed under 40 CFR 51.930 are not required to be included in a SIP or to be otherwise federally-enforceable.

Commenters asked that we allow air agencies 2 years from the date that they become subject to any mitigation plan requirements to develop their mitigation plan. We note that developing an effective mitigation plan that includes the required elements may require input from and coordination with numerous stakeholders, including, but not limited to, air agencies, public health officials, local governments, representatives serving potentially affected minority and low-income populations, if applicable, and the media. Additionally, air agencies must make the mitigation plan available for public comment, and respond and revise the mitigation plan in response to those comments, as appropriate. Upon consideration, we believe 2 years is a reasonable amount of time to ensure that air agencies have adequate time to prepare comprehensive mitigation plans that respond to the public health threat presented by historically documented or known seasonal events. Therefore, we are incorporating the commenters' suggestion into this preamble and into the final regulatory language. Thus, air agencies with historically documented or known seasonal exceptional events that we are formally identifying in this action as being subject to the requirements of this section will have 2 years from the effective date of this action to submit a mitigation plan to their applicable EPA Regional office. The EPA will process events of the type and pollutant that are the subject of the mitigation plan that occur during this 2-year period following the general provisions outlined in 40 CFR 50.14. During this interim period, the EPA's concurrence on demonstrations will not be contingent upon the affected air agency's submittal of a mitigation plan because air agencies should have sufficient time to develop their newly required mitigation plans. It is not reasonable to delay acting on demonstration submittals while air agencies prepare these plans. However, for events of the type subject to the mitigation plan requirement that occur after this 2-year window, the EPA's action on demonstrations will be contingent on the submittal of a mitigation plan that

meets the requirements of this action. As the EPA identifies other areas subject to the mitigation requirements in this final rule, we provide such notice to the affected air agencies. Notified air agencies will then have a 2-year period to develop a mitigation plan. During this period of development, the EPA's concurrence on demonstrations for events of the type and pollutant that are the subject of the mitigation plan will not be contingent upon the affected air agency's submittal of a mitigation plan.

All areas subject to these mitigation plan requirements can submit the mitigation plan to the EPA in advance of an event, or submit a mitigation plan along with an exceptional events demonstration. The EPA expects that mitigation plans developed according to this section will assist agencies in satisfying the not reasonably controllable or preventable criterion discussed in Section IV.E.2 of this preamble.

C. Comments and Responses

While the majority of commenters provided feedback indicating their preference to retain the existing mitigation requirements in 40 CFR 51.930 without revision, several other commenters supported the development of mitigation plans either for areas with "historically documented" or "known seasonal" events or all events. Of those commenters providing feedback on the EPA's review of mitigation plans, many commenters supported the "review" versus "approval" option. As previously noted, we have implemented the review option, which we proposed as Option 1. We believe that Option 1 maximizes the flexibility of the air agency while providing for the protection of public health through the EPA's review to ensure inclusion of required plan content and through the required public review process. Also consistent with commenter feedback, we have identified required program components, but have not specified

the required content. Rather, it is appropriate to allow air agencies to develop mechanisms that are tailored to their unique situations and events.

Also regarding specific recommendations on plan content, one commenter did not support public notification for exceedances of an annual standard. The EPA agrees with the commenter that public notification is not necessary when the pollutant concentrations exceed or violate a 3-month rolling average or an annual average as these exceedances/violations reflect cumulative effects and in many cases the cause of the exceedance or violation is long past. We have clarified this point by adding regulatory language requiring public notification for exceedances or anticipated exceedances of short-term NAAQS. We also added regulatory text and a footnote in this preamble to define “short-term” as a NAAQS with an averaging time that is less than or equal to 24-hours.

VI. Environmental Justice Considerations

The Exceptional Events Rule provides the criteria by which state, local and tribal air agencies identify air quality data they believe have been influenced by exceptional events, which by statutory definition are not reasonably controllable or preventable. Because it is not reasonable to control or prevent these events, they can affect all downwind populations including minority and low-income populations. For this reason, in adding CAA section 319(b), Congress identified as a guiding principle in developing regulations, “the principle that protection of public health is the highest priority.” The Exceptional Events Rule at 40 CFR 50.14 requires air agencies to seek public comment on prepared exceptional events demonstrations prior to submitting them to the reviewing EPA Regional office. The public can also comment on rulemakings that include decisions related to the exclusion of event-influenced data. The

mitigation of exceptional events language at 40 CFR 51.930 also requires that air agencies provide public notification and education programs related to events.

To protect all people and communities, notably minority and low-income populations, air agencies should ensure that notifications and education programs are communicated using the language (*e.g.*, English and Spanish) and media (*e.g.*, radio and postings in local community centers) best suited to the target audience(s). Furthermore, this action requires states to develop mitigation plans for recurring event types. Additionally, these revisions to the Exceptional Events Rule are being made as part of a public notice-and-comment rulemaking effort, which included a public hearing. These opportunities for public input in the rulemaking process, and the resulting requirements regarding public input and education ensure that all those residing, working, attending school or otherwise present in areas affected by exceptional events, regardless of minority and economic status, are protected.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review because it raises novel policy issues. Any changes made in response to OMB recommendations have been documented in the docket.

B. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities for ambient air monitoring data and other supporting measurements reporting and recordkeeping activities associated with the 40 CFR part 58 Ambient Air Quality Surveillance rule and has assigned OMB control number

2060-0084. The information being requested under these proposed rule revisions is consistent with current requirements related to information needed to verify the authenticity of monitoring data submitted to the EPA's AQS database, and to justify exclusion of data that have been flagged as being affected by exceptional events.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. Instead, the rule revisions provide the criteria and increase the efficiency of the process by which state, local and tribal air agencies identify air quality data they believe have been influenced by an exceptional event. The rule revisions also clarify those actions that state, local and tribal air agencies should take to protect public health during and following an exceptional event. Because affected air agencies would have discretion to implement controls on sources that may need to be regulated due to anthropogenic contribution in the area determined to be influenced by an exceptional event, the EPA cannot predict the indirect effect of the rule on sources that may be small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. The EPA believes, however, that this action may be of significant interest to states and to local air quality agencies to whom a state has delegated relevant responsibilities for air quality management. Consistent with the EPA's policy

to promote communications between the EPA and state and local governments, the EPA consulted with representatives of state and local governments early in the process of developing this action to permit them to have meaningful and timely input into its development. A summary of the concerns raised during that consultation is provided in Section IV of this preamble.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. It would not have a substantial direct effect on one or more Indian tribes. Furthermore, these regulation revisions do not affect the relationship or distribution of power and responsibilities between the federal government and Indian tribes. The CAA and the TAR establish the relationship of the federal government and tribes in characterizing air quality and developing plans to attain the NAAQS, and these revisions to the regulations do nothing to modify that relationship. Thus, Executive Order 13175 does not apply to this action.

Although Executive Order 13175 does not apply to this action, the EPA held public meetings attended by tribal representatives and separate meetings with tribal representatives to discuss the revisions proposed in this action. The EPA also provided an opportunity for all interested parties to provide oral or written comments on potential concepts for the EPA to address during the rule revision process. Summaries of these meetings are included in the docket for this rule. The EPA received comments on this action from multiple tribal organizations, requesting clarification on how this action includes and protects federal tribal communities. The Exceptional Events Rule addresses these concerns through the public comment process for both the rule revision and the exceptional events demonstrations, outreach efforts, and notification requirements.

G. Executive Order 13045: Protection of Children from Environmental Health & Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. The purpose of this proposed rule is to provide the criteria, and increase the efficiency of the process, by which state, local and tribal air agencies may identify air quality data they believe have been influenced by an exceptional event. The EPA does not expect these activities to affect energy suppliers, distributors or users.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in the Section VI of the preamble titled “Environmental Justice Considerations.” This action provides the criteria and increases the

efficiency of the process by which state, local and tribal air agencies identify air quality data they believe have been influenced by exceptional events, which, by statutory definition, are not reasonably controllable or preventable. These regulatory provisions do, however, provide information concerning actions that state, local or tribal air agencies might take to uniformly protect public health once the EPA has concurred with an air agency's request to exclude data influenced by an exceptional event. The mitigation component of the rule could ultimately provide additional protection for minority, low income and other populations located in areas affected by recurring exceptional events. Therefore, the EPA finds that this action would not adversely affect the health or safety of minority or low-income populations, and that it is designed to protect and enhance the health and safety of these and other populations.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

VIII. Statutory Authority

The statutory authority for this action is provided by 42 U.S.C. 7401, *et seq.*

List of Subjects

40 CFR Part 50

Environmental protection, Air pollution control, National parks, Wilderness areas.

40 CFR Part 51

Environmental protection, Air pollution control, National parks, Wilderness areas.

Dated: September 16, 2016.

Gina McCarthy,
Administrator.

For the reasons set forth in the preamble, parts 50 and 51, title 40, chapter I of the Code of Federal Regulations are amended as follows:

PART 50--NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS

1. The authority citation for part 50 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

2. Amend § 50.1 by:

- a. Revising paragraphs (j) and (k).
- b. Adding paragraphs (m), (n), (o), (p), (q) and (r).

The revisions and additions read as follows:

§ 50.1 Definitions.

* * * * *

(j) *Exceptional event* means an event(s) and its resulting emissions that affect air quality in such a way that there exists a clear causal relationship between the specific event(s) and the monitored exceedance(s) or violation(s), is not reasonably controllable or preventable, is an event(s) caused by human activity that is unlikely to recur at a particular location or a natural event(s), and is determined by the Administrator in accordance with 40 CFR 50.14 to be an exceptional event. It does not include air pollution relating to source noncompliance. Stagnation of air masses and meteorological inversions do not directly cause pollutant emissions and are not exceptional events. Meteorological events involving high temperatures or lack of precipitation (*i.e.*, severe, extreme or exceptional drought) also do not directly cause pollutant emissions and are not considered exceptional events. However, conditions involving high temperatures or lack of precipitation may promote occurrences of particular types of exceptional events, such as

wildfires or high wind events, which do directly cause emissions.

(k) *Natural event* means an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. For purposes of the definition of a natural event, anthropogenic sources that are reasonably controlled shall be considered to not play a direct role in causing emissions.

(m) *Prescribed fire* is any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific land or resource management objectives.

(n) *Wildfire* is any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions, or a prescribed fire that has developed into a wildfire. A wildfire that predominantly occurs on wildland is a natural event.

(o) *Wildland* means an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.

(p) *High wind dust event* is an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site.

(q) *High wind threshold* is the minimum wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by a high wind dust event.

(r) *Federal land manager* means, consistent with the definition in 40 CFR 51.301, the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee) or, with respect to Roosevelt-Campobello International Park, the Chairman of the Roosevelt-

Campobello International Park Commission.

3. Revise § 50.14 to read as follows:

§ 50.14 Treatment of air quality monitoring data influenced by exceptional events.

(a) *Requirements*—(1) *Scope*. (i) This section applies to the treatment of data showing exceedances or violations of any national ambient air quality standard for purposes of the following types of regulatory determinations by the Administrator:

(A) An action to designate an area, pursuant to Clean Air Act section 107(d)(1), or redesignate an area, pursuant to Clean Air Act section 107(d)(3), for a particular national ambient air quality standard;

(B) The assignment or re-assignment of a classification category to a nonattainment area where such classification is based on a comparison of pollutant design values, calculated according to the specific data handling procedures in 40 CFR part 50 for each national ambient air quality standard, to the level of the relevant national ambient air quality standard;

(C) A determination regarding whether a nonattainment area has attained the level of the appropriate national ambient air quality standard by its specified deadline;

(D) A determination that an area has data for the specific NAAQS, which qualify the area for an attainment date extension under the CAA provisions for the applicable pollutant;

(E) A determination under Clean Air Act section 110(k)(5), if based on an area violating a national ambient air quality standard, that the state implementation plan is inadequate under the requirements of Clean Air Act section 110; and

(F) Other actions on a case-by-case basis as determined by the Administrator.

(ii) A State, federal land manager or other federal agency may request the Administrator to exclude data showing exceedances or violations of any national ambient air quality standard that

are directly due to an exceptional event from use in determinations identified in paragraph (a)(1)(i) of this section by demonstrating to the Administrator's satisfaction that such event caused a specific air pollution concentration at a particular air quality monitoring location.

(A) For a federal land manager or other federal agency to be eligible to initiate such a request for data exclusion, the federal land manager or other federal agency must:

(1) Either operate a regulatory monitor that has been affected by an exceptional event or manage land on which an exceptional event occurred that influenced a monitored concentration at a regulatory monitor; and

(2) Initiate such a request only after the State in which the affected monitor is located concurs with the federal land manager's or other federal agency's submittal.

(B) With regard to such a request, all provisions in this section that are expressed as requirements applying to a State shall, except as noted, be requirements applying to the federal land manager or other federal agency.

(C) Provided all provisions in this section are met, the Administrator shall allow a State to submit demonstrations for any regulatory monitor within its jurisdictional bounds, including those operated by federal land managers, other federal agencies and delegated local agencies.

(D) Where multiple agencies within a state submit demonstrations for events that meet the requirements of the Exceptional Events Rule, a State submittal shall have primacy for any regulatory monitor within its jurisdictional bounds.

(2) A demonstration to justify data exclusion may include any reliable and accurate data, but must specifically address the elements in paragraphs (c)(3)(iv) and (v) of this section.

(b) *Determinations by the Administrator*—(1) *Generally*. The Administrator shall exclude data from use in determinations of exceedances and violations identified in paragraph (a)(1)(i) of this

section where a State demonstrates to the Administrator's satisfaction that an exceptional event caused a specific air pollution concentration at a particular air quality monitoring location and otherwise satisfies the requirements of this section.

(2) *Fireworks displays*. The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator's satisfaction that emissions from fireworks displays caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Such data will be treated in the same manner as exceptional events under this rule, provided a State demonstrates that such use of fireworks is significantly integral to traditional national, ethnic, or other cultural events including, but not limited to, July Fourth celebrations that satisfy the requirements of this section.

(3) *Prescribed fires*. (i) The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator's satisfaction that emissions from prescribed fires caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section.

(ii) In addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion:

(A) With respect to the requirement that a prescribed fire be not reasonably controllable, the State must either certify to the Administrator that it has adopted and is implementing a smoke management program or the State must demonstrate that the burn manager employed appropriate basic smoke management practices identified in Table 1 to § 50.14. Where a burn manager employs appropriate basic smoke management practices, the State may rely on a statement or

other documentation provided by the burn manager that he or she employed those practices. If an exceedance or violation of a NAAQS occurs when a prescribed fire is employing an appropriate basic smoke management practices approach, the State and the burn manager must undertake a review of the subject fire, including a review of the basic smoke management practices applied during the subject fire to ensure the protection of air quality and public health and progress towards restoring and/or maintaining a sustainable and resilient wildland ecosystem. If the prescribed fire becomes the subject of an exceptional events demonstration, documentation of the post-burn review must accompany the demonstration.

(B) If the State anticipates satisfying the requirements of paragraph (c)(3)(iv)(D) of this section by employing the appropriate basic smoke management practices identified in Table 1 to § 50.14, then:

(1) The State, federal land managers, and other entities as appropriate, must periodically collaborate with burn managers operating within the jurisdiction of the State to discuss and document the process by which air agencies and land managers will work together to protect public health and manage air quality impacts during the conduct of prescribed fires on wildland. Such discussions must include outreach and education regarding general expectations for the selection and application of appropriate basic smoke management practices and goals for advancing strategies and increasing adoption and communication of the benefits of appropriate basic smoke management practices;

(2) The State, federal land managers and burn managers shall have an initial implementation period, defined as being 2 years from **September 30, 2016**, to implement the collaboration and outreach effort identified in paragraph (b)(3)(ii)(B)(1) of this section; and

(3) Except as provided in paragraph (b)(3)(ii)(B)(2) of this section, the Administrator shall not

place a concurrence flag in the appropriate field for the data record in the AQS database, as specified in paragraph (c)(2)(ii) of this section, if the data are associated with a prescribed fire on wildland unless the requirements of paragraph (b)(3)(ii)(B)(I) of this section have been met and associated documentation accompanies any applicable exceptional events demonstration. The Administrator may nonconcur or defer action on such a demonstration.

(C) With respect to the requirement that a prescribed fire be not reasonably preventable, the State may rely upon and reference a multi-year land or resource management plan for a wildland area with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire provided that the Administrator determines that there is no compelling evidence to the contrary in the record and the use of prescribed fire in the area has not exceeded the frequency indicated in that plan.

(iii) Provided the Administrator determines that there is no compelling evidence to the contrary in the record, in addressing the requirements set forth in paragraph (c)(3)(iv)(E) of this section regarding the human activity unlikely to recur at a particular location criterion for demonstrations involving prescribed fires on wildland, the State must describe the actual frequency with which a burn was conducted, but may rely upon and reference an assessment of the natural fire return interval or the prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire.

Table 1 to § 50.14. Summary of Basic Smoke Management Practices, Benefit Achieved with the BSMP, and When it is Applied.^a

Basic Smoke Management Practice^b	Benefit achieved with the BSMP	When the BSMP is Applied – Before/During/After the Burn
Evaluate Smoke Dispersion Conditions	Minimize smoke impacts	Before, During, After
Monitor Effects on Air Quality	Be aware of where the smoke is going and degree it impacts air quality	Before, During, After
Record-Keeping/Maintain a Burn/Smoke Journal	Retain information about the weather, burn and smoke. If air quality problems occur, documentation helps analyze and address air regulatory issues.	Before, During, After
Communication – Public Notification	Notify neighbors and those potentially impacted by smoke, especially sensitive receptors	Before, During
Consider Emission Reduction Techniques	Reducing emissions through mechanisms such as reducing fuel loading can reduce downwind impacts	Before, During, After
Share the Airshed – Coordination of Area Burning	Coordinate multiple burns in the area to manage exposure of the public to smoke	Before, During, After

^a The EPA believes that elements of these BSMP could also be practical and beneficial to apply to wildfires for areas likely to experience recurring wildfires.

^b The listing of BSMP in this table is not intended to be all-inclusive. Not all BSMP are appropriate for all burns. Goals for applicability should retain flexibility to allow for onsite variation and site-specific conditions that can be variable on the day of the burn. Burn managers can consider other appropriate BSMP as they become available due to technological advancement or programmatic refinement.

(4) *Wildfires*. The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator's satisfaction that emissions from wildfires caused a specific air pollution concentration in excess of one or more national ambient air quality standard at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Provided the Administrator determines that there is no compelling evidence to the contrary in the record, the Administrator will determine every wildfire occurring predominantly on wildland to have met the requirements identified in paragraph (c)(3)(iv)(D) of

this section regarding the not reasonably controllable or preventable criterion.

(5) *High wind dust events.* (i) The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator's satisfaction that emissions from a high wind dust event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section provided that such emissions are from high wind dust events.

(ii) The Administrator will consider high wind dust events to be natural events in cases where windblown dust is entirely from natural undisturbed lands in the area or where all anthropogenic sources are reasonably controlled as determined in accordance with paragraph (b)(8) of this section.

(iii) The Administrator will accept a high wind threshold of a sustained wind of 25 mph for areas in the States of Arizona, California, Colorado, Kansas, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming provided this value is not contradicted by evidence in the record at the time the State submits a demonstration. In lieu of this threshold, States can identify and use an Administrator-approved alternate area-specific high wind threshold that is more representative of local or regional conditions, if appropriate.

(iv) In addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably preventable criterion, the State shall not be required to provide a case-specific justification for a high wind dust event.

(v) With respect to the not reasonably controllable criterion of paragraph (c)(3)(iv)(D) of this section, dust controls on an anthropogenic source shall be considered reasonable in any case in which the controls render the anthropogenic source as resistant to high winds as natural

undisturbed lands in the area affected by the high wind dust event. The Administrator may determine lesser controls reasonable on a case-by-case basis.

(vi) For large-scale and high-energy high wind dust events, the Administrator will generally consider a demonstration documenting the nature and extent of the event to be sufficient with respect to the not reasonably controllable criterion of paragraph (c)(3)(iv)(D) of this section provided the State provides evidence showing that the event satisfies the following:

(A) The event is associated with a dust storm and is the focus of a Dust Storm Warning.

(B) The event has sustained winds that are greater than or equal to 40 miles per hour.

(C) The event has reduced visibility equal to or less than 0.5 miles.

(6) *Stratospheric Intrusions*. Where a State demonstrates to the Administrator's satisfaction that emissions from stratospheric intrusions caused a specific air pollution concentration in excess of one or more national ambient air quality standard at a particular air quality monitoring location and otherwise satisfies the requirements of this section, the Administrator will determine stratospheric intrusions to have met the requirements identified in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion and shall exclude data from use in determinations of exceedances and violations.

(7) *Determinations with respect to event aggregation, multiple national ambient air quality standards for the same pollutant, and exclusion of 24-hour values for particulate matter*.

(i) Where a State demonstrates to the Administrator's satisfaction that for national ambient air quality standards with averaging or cumulative periods less than or equal to 24 hours the aggregate effect of events occurring on the same day has caused an exceedance or violation, the Administrator shall determine such collective data to satisfy the requirements in paragraph (c)(3)(iv)(B) of this section regarding the clear causal relationship criterion. Where a State

demonstrates to the Administrator's satisfaction that for national ambient air quality standards with averaging or cumulative periods longer than 24 hours the aggregate effect of events occurring on different days has caused an exceedance or violation, the Administrator shall determine such collective data to satisfy the requirements in paragraph (c)(3)(iv)(B) of this section regarding the clear causal relationship criterion.

(ii) The Administrator shall accept as part of a demonstration for the clear causal relationship in paragraph (c)(3)(iv)(B) of this section with respect to a 24-hour NAAQS, a State's comparison of a 24-hour concentration of any national ambient air quality standard pollutant to the level of a national ambient air quality standard for the same pollutant with a longer averaging period. The Administrator shall also accept as part of a demonstration for the clear causal relationship in paragraph (c)(3)(iv)(B) of this section with respect to a NAAQS with a longer averaging period, a State's comparison of a 24-hour concentration of any national ambient air quality standard pollutant to the level of the national ambient air quality standard for the same pollutant with a longer averaging period, without the State having to demonstrate that the event caused the annual average concentration of the pollutant to exceed the level of the NAAQS with the longer averaging period.

(iii) Where a State operates a continuous analyzer that has been designated as a Federal Equivalent Method monitor as defined in 40 CFR 50.1(g) that complies with the monitoring requirements of 40 CFR part 58, Appendix C, and the State believes that collected data have been influenced by an event, in following the process outlined in paragraph (c)(2) of this section, the State shall create an initial event description and flag the associated event-influenced data that have been submitted to the AQS database for the affected monitor. Where a State demonstrates to the Administrator's satisfaction that such data satisfy the requirements in

paragraph (c)(3)(iv)(B) of this section regarding the clear causal relationship criterion and otherwise satisfy the requirements of this section, the Administrator shall agree to exclude all data within the affected calendar day(s).

(8) *Determinations with respect to the not reasonably controllable or preventable criterion.* (i)

The not reasonably controllable or preventable criterion has two prongs that the State must demonstrate: prevention and control.

(ii) The Administrator shall determine that an event is not reasonably preventable if the State shows that reasonable measures to prevent the event were applied at the time of the event.

(iii) The Administrator shall determine that an event is not reasonably controllable if the State shows that reasonable measures to control the impact of the event on air quality were applied at the time of the event.

(iv) The Administrator shall assess the reasonableness of available controls for anthropogenic sources based on information available as of the date of the event.

(v) Except where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the Administrator shall consider enforceable control measures implemented in accordance with a state implementation plan, tribal implementation plan, or federal implementation plan, approved by the EPA within 5 years of the date of the event, that address the event-related pollutant and all sources necessary to fulfill the requirements of the Clean Air Act for the state implementation plan, tribal implementation plan, or federal implementation plan to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to the monitored exceedance or violation.

(vi) Where a State, tribal or federal air agency is obligated to revise its state implementation plan,

tribal implementation plan, or federal implementation plan, the deference to enforceable control measures identified in paragraph (b)(8)(v) of this section shall remain only until the due date of the required state implementation plan, tribal implementation plan, or federal implementation plan revisions. However, where an air agency is obligated to revise the enforceable control measures identified in paragraph (b)(8)(v) of this section in its implementation plan as a result of an action pursuant to Clean Air Act section 110(k)(5), the deference, if any, to those enforceable control measures shall be determined on a case-by-case basis.

(vii) The Administrator shall not require a State to provide case-specific justification to support the not reasonably controllable or preventable criterion for emissions-generating activity that occurs outside of the State's jurisdictional boundaries within which the concentration at issue was monitored. In the case of a tribe treated as a state under 40 CFR 49.2 with respect to exceptional events requirements, the tribe's jurisdictional boundaries for purposes of requiring or directly implementing emission controls apply. In the case of a federal land manager or other federal agency submitting a demonstration under the requirements of this section, the jurisdictional boundaries that apply are those of the State or the tribe depending on which has jurisdiction over the area where the event has occurred.

(viii) In addition to the provisions that apply to specific event types identified in paragraphs (b)(3)(ii) and (b)(5)(i) through (iii) of this section in addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion, the State must include the following components:

- (A) Identification of the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources.
- (B) Identification of the relevant state implementation plan, tribal implementation plan, or

federal implementation plan or other enforceable control measures in place for the sources identified in paragraph (b)(8)(vii)(A) of this section and the implementation status of these controls.

(C) Evidence of effective implementation and enforcement of the measures identified in paragraph (b)(8)(vii)(B) of this section.

(D) The provisions in this paragraph shall not apply if the provisions in paragraph (b)(4), (b)(5)(vi), or (b)(6) of this section apply.

(9) *Mitigation plans.* (i) Except as provided for in paragraph (b)(9)(ii) of this section, where a State is subject to the requirements of 40 CFR 51.930(b), the Administrator shall not place a concurrence flag in the appropriate field for the data record in the AQS database, as specified in paragraph (c)(2)(ii) of this section, if the data are of the type and pollutant that are the focus of the mitigation plan until the State fulfills its obligations under the requirements of 40 CFR 51.930(b). The Administrator may nonconcur or defer action on such a demonstration.

(ii) The prohibition on placing a concurrence flag in the appropriate field for the data record in the AQS database by the Administrator stated in paragraph (b)(9)(i) of this section does not apply to data that are included in an exceptional events demonstration that is:

(A) submitted in accordance with paragraph (c)(3) of this section that is also of the type and pollutant that is the focus of the mitigation plan, and

(B) submitted within the 2-year period allowed for mitigation plan development as specified in 40 CFR 51.930(b)(3).

(c) *Schedules and procedures*—(1) *Public notification.* (i) In accordance with the mitigation requirement at 40 CFR 51.930(a)(1), all States and, where applicable, their political subdivisions must notify the public promptly whenever an event occurs or is reasonably anticipated to occur

which may result in the exceedance of an applicable air quality standard.

(ii) [Reserved]

(2) *Initial notification of potential exceptional event.* (i) A State shall notify the Administrator of its intent to request exclusion of one or more measured exceedances of an applicable national ambient air quality standard as being due to an exceptional event by creating an initial event description and flagging the associated data that have been submitted to the AQS database and by engaging in the Initial Notification of Potential Exceptional Event process as follows:

(A) The State and the appropriate EPA Regional office shall engage in regular communications to identify those data that have been potentially influenced by an exceptional event, to determine whether the identified data may affect a regulatory determination and to discuss whether the State should develop and submit an exceptional events demonstration according to the requirements in this section;

(B) For data that may affect an anticipated regulatory determination or where circumstances otherwise compel the Administrator to prioritize the resulting demonstration, the Administrator shall respond to a State's Initial Notification of Potential Exceptional Event with a due date for demonstration submittal that considers the nature of the event and the anticipated timing of the associated regulatory decision;

(C) The Administrator may waive the Initial Notification of Potential Exceptional Event process on a case-by-case basis.

(ii) The data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until, following the State's submittal of its demonstration pursuant to paragraph (c)(3) of this section and the Administrator's review, the Administrator notifies the State of its concurrence by placing a concurrence flag in the

appropriate field for the data record in the AQS database.

(iii) [Reserved]

(iv) [Reserved]

(v) [Reserved]

(vi) Table 2 to § 50.14 identifies the submission process for data that will or may influence the initial designation of areas for any new or revised national ambient air quality standard.

Table 2 to § 50.14. Schedule for Initial Notification and Demonstration Submission for Data Influenced by Exceptional Events for Use in Initial Area Designations

Exceptional Events / Regulatory Action	Condition	Exceptional Events Deadline Schedule^d
(A) Initial Notification deadline for data years 1, 2 and 3. ^a	If state and tribal initial designation recommendations for a new/revised national ambient air quality standard are due August through January,	then the Initial Notification deadline will be the July 1 prior to the recommendation deadline.
(B) Initial Notification deadline for data years 1, 2 and 3. ^a	If state and tribal recommendations for a new/revised national ambient air quality standard are due February through July,	then the Initial Notification deadline will be the January 1 prior to the recommendation deadline.
(C) Exceptional events demonstration submittal deadline for data years 1, 2 and 3. ^a	None.	no later than the later of November 29, 2016 or the date that state and tribal recommendations are due to the Administrator.
(D) Initial Notification and exceptional events demonstration submittal deadline for data year 4 ^b and, where applicable, data year 5. ^c	None	by the last day of the month that is 1 year and 7 months after promulgation of a new/revised national ambient air quality standard, unless either paragraph (E) or paragraph (F) applies.

(E) Initial Notification and exceptional events demonstration submittal deadline for data year 4 ^b and, where applicable, data year 5. ^c	If the Administrator follows a 3-year designation schedule	the deadline is 2 years and 7 months after promulgation of a new/revised national ambient air quality standard.
(F) Initial Notification and exceptional events demonstration submittal deadline for data year 4 ^b and, where applicable, data year 5. ^c	If the Administrator notifies the state/tribe that it intends to complete the initial area designations process according to a schedule between 2 and 3 years,	the deadline is 5 months prior to the date specified for final designations decisions in such Administrator notification.

^a Where data years 1, 2, and 3 are those years expected to be considered in state and tribal recommendations.

^b Where data year 4 is the additional year of data that the Administrator may consider when making final area designations for a new/revised national ambient air quality standard under the standard designations schedule.

^c Where data year 5 is the additional year of data that the Administrator may consider when making final area designations for a new/revised national ambient air quality standard under an extended designations schedule.

^d The date by which air agencies must certify their ambient air quality monitoring data in AQS is annually on May 1 of the year following the year of data collection as specified in 40 CFR 58.15(a)(2). In some cases, however, air agencies may choose to certify a prior year's data in advance of May 1 of the following year, particularly if the Administrator has indicated intent to promulgate final designations in the first 8 months of the calendar year. Exceptional events demonstration deadlines for “early certified” data will follow the deadlines for “year 4” and “year 5” data.

(3) *Submission of demonstrations.* (i) Except as provided under paragraph (c)(2)(vi) of this section, a State that has flagged data as being due to an exceptional event and is requesting exclusion of the affected measurement data shall, after notice and opportunity for public comment, submit a demonstration to justify data exclusion to the Administrator according to the schedule established under paragraph (c)(2)(i)(B).

(ii) [Reserved]

(iii) [Reserved]

(iv) The demonstration to justify data exclusion must include:

(A) A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);

(B) A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation;

(C) Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times to support the requirement at paragraph (c)(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;

(D) A demonstration that the event was both not reasonably controllable and not reasonably preventable; and

(E) A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.

(v) With the submission of the demonstration containing the elements in paragraph (c)(3)(iv) of this section, the State must:

(A) Document that the State followed the public comment process and that the comment period was open for a minimum of 30 days, which could be concurrent with the beginning of the Administrator's initial review period of the associated demonstration provided the State can meet all requirements in this paragraph;

(B) Submit the public comments it received along with its demonstration to the Administrator; and

(C) Address in the submission to the Administrator those comments disputing or contradicting factual evidence provided in the demonstration.

(vi) Where the State has submitted a demonstration according to the requirements of this section after **September 30, 2016** and the Administrator has reviewed such demonstration and requested additional evidence to support one of the elements in paragraph (c)(3)(iv) of this section, the State shall have 12 months from the date of the Administrator's request to submit such evidence. At the conclusion of this time, if the State has not submitted the requested additional evidence, the Administrator will notify the State in writing that it considers the demonstration to be inactive and will not pursue additional review of the demonstration. After a 12-month period of inactivity by the State, if a State desires to pursue the inactive demonstration, it must reinitiate its request to exclude associated data by following the process beginning with paragraph (c)(2)(i) of this section.

PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

4. The authority citation for part 51 continues to read as follows:

Authority: 23 U.S.C. 101; 42 U.S.C. 7401-7671q.

5. Revise §51.930 to read as follows:

§51.930 Mitigation of Exceptional Events.

(a) A State requesting to exclude air quality data due to exceptional events must take appropriate and reasonable actions to protect public health from exceedances or violations of the national ambient air quality standards. At a minimum, the State must:

(1) Provide for prompt public notification whenever air quality concentrations exceed or are expected to exceed an applicable ambient air quality standard;

(2) Provide for public education concerning actions that individuals may take to reduce exposures to unhealthy levels of air quality during and following an exceptional event; and

(3) Provide for the implementation of appropriate measures to protect public health from exceedances or violations of ambient air quality standards caused by exceptional events.

(b) *Development of mitigation plans for areas with historically documented or known seasonal events*—(1) *Generally*. All States having areas with historically documented or known seasonal events shall be required to develop a mitigation plan with the components identified in paragraph (b)(2) of this section and submit such plan to the Administrator according to the requirements in paragraph (b)(3) of this section.

(i) For purposes of the requirements set forth in this section, historically documented or known seasonal events shall include those events of the same type and pollutant that recur in a 3-year period and meet any of the following:

- (A) Three events or event seasons for which a State submits a demonstration under the provisions of 40 CFR 50.14 in a 3-year period; or
 - (B) Three events or event seasons that are the subject of an initial notification of a potential exceptional event as defined in 40 CFR 50.14(c)(2) in a 3-year period regardless of whether the State submits a demonstration under the provisions of 40 CFR 50.14.
- (ii) The Administrator will provide written notification to States that they are subject to the requirements in paragraph (b) of this section when the Administrator becomes aware of applicability.
- (2) *Plan components.* At a minimum, each mitigation plan developed under this paragraph shall contain provisions for the following:
- (i) Public notification to and education programs for affected or potentially affected communities. Such notification and education programs shall apply whenever air quality concentrations exceed or are expected to exceed a national ambient air quality standard with an averaging time that is less than or equal to 24-hours.
 - (ii) Steps to identify, study and implement mitigating measures, including approaches to address each of the following:
 - (A) Measures to abate or minimize contributing controllable sources of identified pollutants.
 - (B) Methods to minimize public exposure to high concentrations of identified pollutants.
 - (C) Processes to collect and maintain data pertinent to the event.
 - (D) Mechanisms to consult with other air quality managers in the affected area regarding the appropriate responses to abate and minimize impacts.
 - (iii) Provisions for periodic review and evaluation of the mitigation plan and its implementation and effectiveness by the State and all interested stakeholders.

(A) With the submission of the initial mitigation plan according to the requirements in paragraph (b)(3) of this section that contains the elements in paragraph (b)(2) of this section, the State must:

(1) Document that a draft version of the mitigation plan was available for public comment for a minimum of 30 days;

(2) Submit the public comments it received along with its mitigation plan to the Administrator; and

(3) In its submission to the Administrator, for each public comment received, explain the changes made to the mitigation plan or explain why the State did not make any changes to the mitigation plan.

(B) The State shall specify in its mitigation plan the periodic review and evaluation process that it intends to follow for reviews following the initial review identified in paragraph (b)(2)(iii)(A) of this section.

(3) *Submission of mitigation plans.* All States subject to the provisions of paragraph (b) of this section shall, after notice and opportunity for public comment identified in paragraph (b)(2)(iii)(A) of this section, submit a mitigation plan to the Administrator for review and verification of the plan components identified in paragraph (b)(2) of this section.

(i) States shall submit their mitigation plans within 2 years of being notified that they are subject to the provisions of paragraph (b) of this section.

(ii) The Administrator shall review each mitigation plan developed according to the requirements in paragraph (b)(2) of this section and shall notify the submitting State upon completion of such review.

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